THE DEVELOPMENT OF AN ALTERNATIVE GOLF LEARNING FACILITY: A PROGRESSIVE PLAN USING DOUGLASS PARK AND THE FORMER MONON RAILYARD

by

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BALL STATE UNIVERSITY
MUNCIE, INDIANA
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Acknowledgements

To my father, for introducing me to this crazy game. To Paul, for beginning my education in golf course architecture. To Tom, for teaching me how great golf courses are designed and built. To Malcolm, for believing that golf courses are worth studying. And to my sister, for trying to keep me sane through the entire process.

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Introduction

The game of golf has existed for almost 600 years, and for the majority of that time it was contested by players hitting a ball towards a hole over open terrain. Distance, direction, and even number of holes were once variable, but as the game has gained popularity in the past 150 years, it has become more standardized. The sport is now struggling with some of the unintended consequences of that standardization. The goal of this creative project is to explore ways that golf can break out of the restraints imposed by standardization to become more affordable and accessible, transforming it into a game for the masses.

The majority of golf courses are regulation golf courses. These are defined by Mackenzie Hurd as "typically comprised of 18-holes. Yardage and par can vary, but generally runs between 68 and 74 with a length between 4,500 and 7,000+ yards"[1] and

[1] MacKenzie P. Hurd, "Considerations for Non-Profit, Alternative Golf Facility Development," *United States Golf Association,* (January 2001): 4. http://www.usga.org/aboutus/foundation/resources/The_Button_Hole_Story.pdf.

they compose almost 70% of all playing facilities in the US.[2] In order to achieve these standards of length and par, golf courses consume a substantial amount of land, usually at least 150 acres. The need for large tracts of land has pushed the game to the outskirts of cities where land is cheaper and more plentiful. While some of these courses have been absorbed by expanding cities, most remain on the periphery, far away from high population densities.

Regulation courses can also be intimidating for new players, a fact that course designers have recognized for years. In the 1929 book, The Architectural Side of Golf, the authors talk of how "embryo golfers often find the links frequented by grown-ups rather beyond their strength, and can quickly become discouraged."[3] The difficulty of bringing new players into the game has not changed in the intervening years. As Geoff Shackelford notes in his book, The Future of Golf in America, excessive difficulty is cited as one of the three main reasons – the others being cost and pace of play – more Americans do not play golf. All of these barriers have direct ties to trends in modern golf architecture.[4]

As equipment has become more advanced, designers have responded by making golf courses longer with many playing over 7,000 yards from the back tee. This increased length requires additional land, driving up the cost of a round. Developers have also stretched out courses to accommodate more housing lots on the golf course, this

[2] At the end of 2008 there were 15,931 golf facilities in the United States, 11,027 of which were comprised of 18 or more regulation holes. Information found at the National Golf Foundation website, www.ngf.org, accessed November 11, 2009.
[3] H. N. Wethered and T. Simpson, *The Architectural Side of Golf* (London: Longmans, Green, and Co., 1929, 175.
[4] Geoff Shackelford, *The Future of Golf in America: How golf lost its way in the 21st century and how to get it back* (New York: iUniverse, 2001), 85.

increases the distance from green to tee and slows the pace of play. Finally, many courses are experienced by beginning golfers from the forward tees but designed from the back tees. This disconnect can make the course even more difficult and frustrating for beginners. With its high cost and the scarcity of enjoyable places to learn the game, it is not surprising the number of people participating in golf and the number of rounds they play have declined in the past ten years.[5]

But golf does offer tremendous benefits to those who choose to stick with it. It is played outside in picturesque landscapes, teaches integrity and sportsmanship, and promotes lifetime activity and the development of motor skills. It can also be enjoyed by people of all ages and "enables players of unequal merit to meet and enjoy a game" together in a way that is impossible in other sports.[6] So what can be done to preserve this sport for future generations, while addressing some of the difficulties it faces?

The golf community has developed programs to address some of these issues. In order to combat declining participation rates and an aging population base the Professional Golfers' Association (PGA), in conjunction with the United States Golf Association (USGA), formed the First Tee Program in 1997. The goal of this program is "to impact the lives of young people by providing learning facilities and educational programs that promote character development and life-enhancing values through the game of golf."[7] At the end of 2008, the First Tee had 205 chapters across the United States. First Tee is the most prominent of the nation-wide programs designed to promote

[5] In 2000 there were 28.8 million people age 6+ who played 518.4 million rounds of golf, in 2008 there were 28.6 million golfers playing 489.1 rounds of golf. Information found at National Golf Foundation website, www.ngf.org, accessed January 5, 2010.
[6] Wethered and Simpson, 17.
[7] "The First Tee," *The First Tee*, 2009, http://www.thefirsttee.org.

golf, in addition, smaller programs run by municipalities and even individual courses exist throughout the country that encourage people to play golf.

While the First Tee and similar programs deal with bringing more golfers to the game, there are no specific programs to address the problems beginners face on golf courses themselves, mainly cost and accessibility. Alternative courses, defined by Hurd as facilities that "provide the same experience as a regulation golf course but offer a beginner-friendly layout, cost less money, and take less time to play"[8] are one way to address these issues. Alternative facilities can vary widely from a pitch and putt – where almost all the holes are less than 75 yards – all the way through an executive course – composed of regulation par 3 and par 4 holes, and because they require less land, they can be located in places that would be impossible for a regulation course. The flexibility offered by alternative courses allows golf to step outside the barriers of standardization to find new ways for people to experience the sport.

Many First Tee programs use beginner-friendly short courses to introduce participants to the game of golf. These courses provide a great initiation to the sport, but after interviewing an array of program directors they stated that the presence of a "real" course nearby, where participants could continue to develop is paramount. Shackelford reiterates this point asking "but where are the affordable and interesting courses that graduates can move up to after getting hooked?"[9] This combination of a place to learn and practice the game accompanied by a place to test their skills is the best way to keep new golfers participating in the sport according to the program directors.

[8] Hurd, 4.
[9] Shackelford, *Future*, 119.

This creative project proposes to create a progressive learning facility in Indianapolis, Indiana, where participants can learn, practice, and play the game of golf through the design of a learning facility on the old Monon Railyard and the renovation of the existing Douglass Park Golf Course. The design will show that accessible golf and interesting architecture can be combined to help preserve the sport for future generations.

The Evolution of Golf and Golf Facilities

The sport of golf has a long history, and in order to design a facility that will be relevant both today and in the future it is important to understand the different aspects of the game and how they have evolved. This chapter will provide a brief history of the game, look at different schools of design, and explore types of alternative courses and practice facilities.

The Beginnings of Golf

Golf began over six centuries ago in northern Europe. While no one is entirely sure who was first responsible for hitting a ball with an oddly shaped stick towards a distant hole, Scotland is where the game was first defined and where its first courses were located. These early courses were located on linksland, a narrow strip of land that connected the more fertile inland terrain to the sea. These areas were formed at the end of the most recent ice age, when the retreating glaciers exposed sandy deposits and old

coastal shelves. Wind shaped the sand into dunes and rippling plains, and coarse grasses covered everything. Linksland was initially used for livestock grazing by the early Britons because it was too infertile and too exposed for growing crops, and when golf began to gain popularity, Scotsmen headed to the open links to play.[1]

For the next 350 years, the game grew slowly, restricted as it was to the coastal links of Britain, but it was during this period that golf began to more closely resemble the game played today. The first golfing societies came into being in the mid 1700s, and by the early 1800s, golf courses were becoming more formalized, with a set routing and number of holes. In 1857, The Royal and Ancient Golf Club of St. Andrews, now more simply known as the R&A, established that a round of golf "shall consist of 18 holes." The game also began to move inland from its coastal roots, exposing more people to the game. By 1871, the game had ventured off the British Isles and before the century was over, courses had been established in North America, Asia, Australia, and mainland Europe. This period of explosive growth is also when courses began to be formally laid out instead of simply "found," and the profession of golf architecture was born.

Schools of Golf Course Design

As the profession of golf architecture grew, different styles of design began to emerge. Many of the courses laid out at the end of the 19th and beginning of the 20th century were designed by golf professionals. These men, in general, wanted to ensure courses were "fair" and that good shots were rewarded and bad shots punished. To achieve this aim, designers placed bunkers to catch poorly hit balls such as topped drives

[1] David Owen, "The Ghost Course: Links to the past on a Scottish island," *The New Yorker*, April 20, 2009, p.38.

and wayward shots. Other common golf course features from this era included chocolate drops – usually stones or roots covered in dirt that resemble Hershey's Kisses – meant to provide an awkward stance for future shots, and cops – raised berms in the center of fairways – meant to stop and deflect balls scooting along the ground. These designs adhered to a very black and white view of the sport, and became known as penal designs due to their punishing nature. While a "fair" test of golf for the professionals, they provided little in the way of enjoyment for the average golfer and were unduly harsh on beginners. Thankfully, a combination of concerned individuals – architect C.B. MacDonald is said to have stated "The very soul of golf shrieks" after seeing one – and World War I put an end to this period of design.

The next era of design was the strategic school. This era produced what is known as the Golden Age of Golf Architecture and lasted from roughly 1910 to 1937. The strategic school of design was a radical departure from the penal school and was based on the idea that golfers should not be "rewarded simply because [they] have not committed a technical error."[2] In strategic design, holes are laid out with numerous routes to the green, so the golfer can chose whichever path he wants based on his confidence and ability. The most direct route to the hole is usually fraught with danger, and there is an emphasis on the ability to place and shape golf shots. One of the great appeals of strategic design is that it keeps the round interesting for all levels for players, since hazards are placed to encourage thought and strategy, not to punish. Also, by virtue of the direct route being the most dangerous, the weaker player who fairly judges his abilities has a chance to beat the stronger player who is too brash. The aim of this school

[2] Wethered and Simpson, 33.

of design is summed up in a quote about the Old Course at St. Andrews. "St. Andrews is difficult, not because bunkers are placed to catch inaccurate shots, but because the result of a misadventure is to make the next shot infinitely more difficult than it would otherwise have been."[3] Whereas penal design placed every shot in terms of black and white, strategic design offers the player innumerable shades of gray.

Courses designed during the Golden Age of Golf Course Architecture include some of the most famous courses in the world such as the National Golf Links of America (MacDonald, 1911), Cypress Point (MacKenzie and Hunter, 1928), Augusta National (MacKenzie and Jones, 1933), and Pinehurst #2 (Ross, 1935). Although technology has changed significantly since these courses were designed, the strategic elements inherent in them have kept golfers enthralled throughout the years. Unfortunately, the Great Depression and World War II halted almost all golf course construction, and the Golden Age of Golf Course Architecture came to an end.

When golf course construction began again in the early 1950s, it had undergone a massive transformation. Mechanical innovations such as bulldozers replaced mules and pans, and allowed large quantities of earth to be moved and shaped at a much faster rate. Before the war, courses had been restricted to sites where the topography of the land was conducive to playing golf, but afterwards, the new mechanical advances allowed courses to be located anywhere, from mountains and deserts to swamps. Architects were no longer bound by the land they were given. Into this new reality came Robert Trent Jones, an architect who promised a new type of design to go along with the new construction methods. He introduced a style that became known as heroic design which combined

[3] Wethered and Simpson, 25.

elements of the penal and strategic school. Heroic design, like strategic design, required golfers to hit to a certain location to gain an advantage for the next shot, but it also required them to attempt heroic shots by navigating do-or-die hazards. While these types of courses could be thrilling to play, there were also exceptionally difficult for the average and beginning player, who were given no way around the demanding hazards. Because of their difficulty, major championships tend to be played on heroic courses such as Hazeltine, Baltusrol, and Oak Hill.

In the late 1960s and early 1970s heroic designs began to wane in popularity, due to their difficult nature, and other designers, such as Pete Dye, returned to more strategic design principles with their own added flair. Today many architects profess to be students of the strategic school, although client demands and public perception can make it difficult to build truly strategic courses. The recent pressure to design longer courses means that much of the maintained acreage that would normally be devoted to fairway width, necessary to provide the options essential in strategic design, has instead been redistributed to provide for additional hole length, limiting the player's options. In response, a few modern architects, such as Bill Coore, Ben Crenshaw, and Tom Doak, have scaled back course yardages in an attempt to bring back fun and playability. The success of such places as Bandon Dunes Resort where the longest course is 6,765 yards helps give credence to this philosophy.

While penal and heroic courses have seen their popularity rise and fall, strategic courses have maintained their popularity through the years. The ability of strategic courses to accommodate players of all skill levels and to provide a wide variety of options to the hole allows them to be enjoyed by all golfers, no matter their age or ability.

This flexibility will be important to incorporate into any facility looking to attract new participants to the game.

Principles of Strategic Design

Although strategic courses, like all courses, vary widely in their designs, the principles behind their layouts are the same – to present all levels of golfers with an enjoyable course that provides both a physical and mental challenge. To do this, strategic courses need holes that allow for both success and failure, because as Shackelford states "the strategic course gives the player enough rope to hang himself but also enough to carve his own path to redemption."[4] By including a wide variety of hole types, strategic courses give players an opportunity to demonstrate their golfing skills, but also force them to confront their weaknesses.

Strategic courses provide enjoyment for all levels of golfers. A penal or heroic course is rarely fun for beginners because they require the golfer to hit a certain shot at a certain time, a shot that may be beyond the player's abilities. Strategic courses do not attempt to dictate how a hole should be played, but instead create situations where a player must use their ingenuity to conquer it.[5] In addition, strategic courses attempt to give the average player a fair chance, while demanding the utmost for the expert shooting for a low round. To successfully navigate a strategic course, a golfer needs to think beyond his next shot, similar to the game of pool. In pool, the expert seeks not only to make progress with each shot, but also to position his ball so that subsequent shots will

[4] Shackelford, *Future*, 102.
[5] Tom Doak, *The Anatomy of a Golf Course*, (Short Hills, NJ: Burford Books, 1992), 89.

easily follow.[6] The choice of strategy needed to play a golf hole can be affected by many elements, but the two main components are the topography of the land and the placement of hazards.

The topography of a hole is usually dictated in the routing process, when the designer is laying out the course, and the goal of routing is to best take advantage of the natural features and forms found on the site. These topographic features can impact a golfer before, during, and after his shot. Before a shot, the architect can use the topography of the land as a psychological feature. An elevated tee can encourage a player to be more daring than normal, while a deep ravine on the right can unconsciously cause a golfer to aim farther left. During the swing, the topography can effect the stance of the golfer, which impacts the flight of the ball. Tee boxes are generally built with a minimum – 1 to 2% – of slope, so they do not favor one type of shot over another, but fairways and greens contain undulations and slope. For a right handed golfer, when the ball is above their feet, it causes a flatter swing. This results in a golf shot that generally goes left and long of where the player was aimed. For a ball below the player's feet, the swing tends to be more upright. This causes the ball to go shorter and right of the intended target. These are reversed for a golfer playing left-handed. In addition, if the golfer's front foot is above his back foot, known as an uphill lie, the ball will tend to have a higher trajectory than normal, causing it to land shorter than expected. The opposite is true for a downhill lie, where the player's front foot is below their back foot. Here, the golf ball usually comes out at a lower trajectory and travels farther than expected. After the swing, the topography of the area where the ball lands has an effect on the ball, for

[6] Doak, 66.

instance, a slight downhill slope in the landing area can give a drive an additional kick forward, while a ridge next to a green can steer golf balls onto the putting surface. Although topography effects all parts of the golf shot, it is usually the more subtle of the two main features that impact strategy. A pulled shot due to a slight tilt of the stance or a helpful kick onto the green from a ridge might not be noticed by a beginning golfer, but a more experienced player recognizes these nuances and tries to use them to his advantage.

Hazards on the other hand do not escape the notice of any golfer. Hazards are necessary to make a course interesting and come in many shapes and sizes. Although there are many obstacles on a golf course, only two – bunkers and water – are defined as hazards by the Rules of Golf. On a strategic course these hazards are not placed with the idea of catching wayward shots, like they are on penal and heroic courses, but instead with the thought of protecting the desirable line of play from an awkward and inept assault.[7] Because of this, hazards on strategic courses regularly intrude right up to or actually across the ideal line of play. This requires the golfer to pick a line and tempt the hazard to obtain the best route to the hole. George Thomas, in his book *Golf Architecture in America*, explains this risk/reward aspect of hazards in golf. "The spirit of golf is to dare a hazard, and by negotiating it reap a reward, while he who fears or declines the issue of the carry, has a longer or harder shot for his second; yet the player who avoids the unwise effort gains advantage over one who tries for more than in him lies, or who fails under the test."[8] By making the best route the hardest, a strategic course gives the

[7] Robert Hunter, "The Ideal Golf Course," in *Masters of the Links*, edited by Geoff Shackelford (Chelsea, MI: Sleeping Bear Press, 1997), 13.
[8] George C. Thomas, Jr., *Golf Architecture in America* (Los Angeles: The Times-Mirror Press, 1927), 37.

average player a fair chance, while requiring the best from a player looking to make a low score.

Although both water and bunkers are considered hazards, they do not inflict the same penalty on the golfer, as Bobby Jones explained, "The difference between a sand trap and water is the difference between a car crash and an airplane crash. You have a chance of recovering from a car crash."[9] Because of the harsh penalty they inflict, water hazards should be used with care. Bunkers are a more strategically interesting hazard because their penalty varies depending on the skill of the player. Although beginners are likely to find any hazard frustrating, they should not be omitted from a design because the challenge they offer is necessary to develop both the player's golfing and strategic skills. Alister MacKenzie accurately described the balancing act needed to locate hazards on a golf course. He felt there must not be impossible carries to frustrate the golfer, but at the same time there must be enough formidable hazards to excite him.[10]

Since it would be impossible to show all the possible configurations for locating hazards on a golf hole the following diagrams (figures 2.1 and 2.2), adapted from The Anatomy of a Golf Course by Tom Doak, provide an example as to how architects place hazards on a hole and how their location effects the best route to the hole.

[9] Geoff Shackelford, *Lines of Charm.* (Ann Arbor, MI: Sports Media Group, 2005), 113.
[10] Doak, 57.

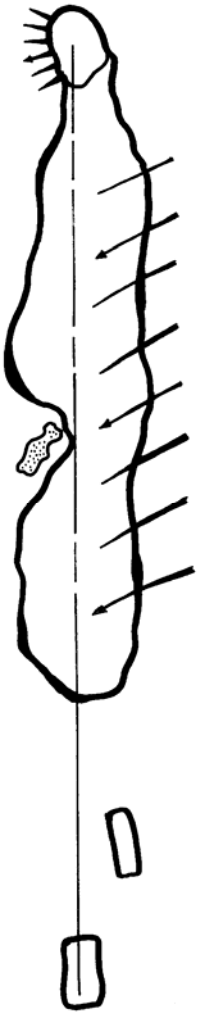

Figure 2.1: Generic Hole A
Adapted from *Anatomy of a Golf Course*, 146.

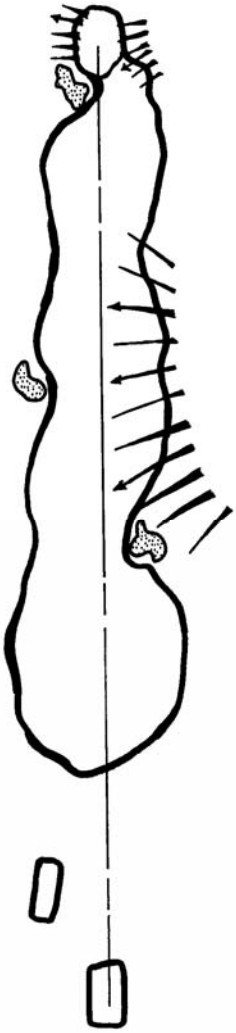

Figure 2.2: Generic Hole B
Adapted from *Anatomy of a Golf Course*, 147.

Both holes have fairways that tilt from right to left and a green that falls off to the left. On Generic Hole A (figure 2.1), the best approach to the green is from the left of the fairway, due to the tilt of the green and a more level stance in that portion of the fairway. Because of this the main hazard is located on the left and the forward tees are placed to the right, so they do not have to hit immediately over the bunker. While this positioning allows golfers playing these tees a hazard-free route to the hole, it requires a more

difficult shot from the fairway in exchange. Generic Hole B (figure 2.2) has a small ridge on the right of the green and a bunker defending the front left. Now, the best approach to the green is from the right-center of the fairway in order to avoid the greenside bunker, so the main fairway hazard is located on the right side of the landing area. The forward tees are located on the left to avoid the main hazard. In addition, a bunker has been placed at the end of the landing area for the forward tees. This is to prevent a long hitter from blasting the ball down the left side, where there is a level lie, and leaving a short iron to the green. The placement of the bunker forces the player to choose between playing safely to the right, but leaving an awkward stance or staying farther left and risking the hazard. Since the bunker is located at the end of the landing area, it should not cause difficulties for short hitters, whose best line would be down the left edge, then over to the right short of the green for their second. These two diagrams show how hazards impact the strategy of a hole and their effect on the ideal line of play, even when the holes have similar topography.

The advantage of strategic courses is that they require thought as well as skill to play and are designed to challenge all levels of golfers. The holes on a strategic course allow for both success and failure giving the golfer opportunities to show his skill and also confront his weakness. By not favoring one type of golfer over another and presenting the player with a wide variety of situations, strategic courses provide an enjoyable round for everyone.

Alternative Golf Facilities

In the past twenty years, much of the new golf course development has been for upscale daily-fee courses. These courses charge high green fees to make up for stagnant volume in the marketplace, and as 18 hole facilities they consume large amounts of land, time, and money to play and maintain. In response, there has been a renewed interest in alternative courses, also known as alternative facilities. These are defined by Mackenzie Hurd as a facility that provides "the same experience as a regulation golf course, but offers a beginner-friendly layout, and costs less money and takes less time to play."[11] Although a few of these new regulation courses have tried to incorporate alternative courses within their layout through the addition of multiple sets of forward tees, their high cost and slow pace of play, prevent them from offering a true alternative. While golf in its 18 hole standard is unlikely to be replaced anytime soon, alternative courses are adaptable and can provide the game with a way to experiment with the reinvention of old ideas or the discovery of new ones.[12]

Alternative courses regularly have fewer and/or shorter holes than a regulation golf course, so they require less acreage. Because of this reduced acreage they generally cost less to build and maintain and can be located closer to population centers. These factors mean that alternative courses are usually both more affordable and more accessible than regular courses, and function as a good introduction to the game.

The phrase alternative course describes a wide variety of facilities and can be broken down into smaller sub-categories. The largest and most common of these sub-

[11] Hurd, 4.
[12] Richardson, 488.

categories are courses with a standard number of holes, but shorter distances. This group includes executive courses, par 3 or short courses, and pitch and putt courses. Another sub-category is composed of courses with standard length holes, but an uncommon number of them. These loops usually contain three to six holes and are commonly called practice courses. They are rarely stand alone facilities and instead are operated in conjunction with a practice facility or regulation course. These two types of alternative facilities merely change the length or number of holes in a facility, but another group of facilities change the entire make-up of a course. While these courses provide an exciting twist on the concept of golf, unfortunately many of them remain just that, concepts on a page. There are very few examples of theses alternative routings actually in the ground.

The most commonly built of these alternative routings is the reversible course. The course, or group of holes, works just as the name suggests. One day the golfer plays in one direction, the next, he reverses direction. Figure 2.3 on the following page shows how a three hole reversible loop works.

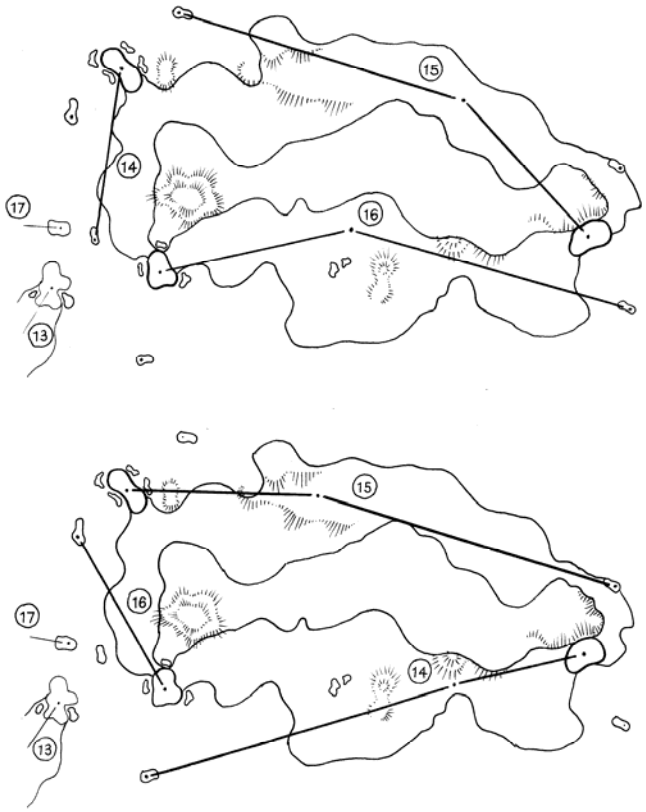

Figure 2.3: A reversible three hole loop
Adapted from *Routing the Golf Course*, p. 265

Reversible courses have a long history in the game of golf. The Old Course at St. Andrews used to be played in opposite directions on alternating weeks and only settled into its current counterclockwise direction for good after World War II, when the course's popularity made the original clockwise direction too cumbersome. Wethered and Simpson, authors of The Architectural Side of Golf, felt the fact that early courses were frequently played backwards provided these courses with a certain level of unexpectedness, adding to their appeal, and advocated for the return of the concept, saying "that in the old and discarded principle of reversibility lies one of the great

possibilities in the way of development so far as modern architecture is concerned."[13] Unfortunately, architects have not taken Wethered and Simpson up on their challenge and aside from a few days around April Fool's Day when you can take a spin around the Old Course backwards, reversible courses have remained in the past.

The other option for alternative golf that has made it into the ground is what I term choose-your-own-adventure golf. Similar to choose-your-own-adventure books, golf courses designed in this manner are simply a collection of greens and tees, with no formal arrangement. Players tee the ball up, hit to a green of their choosing, and after holing out, repeat the process. This style of course harkens back to the earliest days of golf, when there was no set number of holes, par, or order in which they were played. There are a few personal courses in existence that operate this way, and one semi-public course known variously as The Sheep Ranch, Bally Bandon, or Area 51. This layout on thirteen greens along the Pacific Coast of Oregon is hailed as "the way golf used to be." Writer Jeff Wallach describes playing as "a fresh revelation, I begin to understand that the true nature of golf has little to do with score and everything to do with the quenching *thwok* of clubhead against ball, the joy of envisioning and executing cool shots to unknown locations, the camaraderie of friends old and new."[14] While the choose-your-own-course has undoubted appeal – who wouldn't want to play a new course every day? – it also runs into some very practical concerns when more than a foursome or two is out on the course to play. For example, how will golfers know what green to hit towards? Or where does the hole start? And what to do when groups have to cross one another? All of these concerns have limited the practical use of this type of alternative course.

[13] Wethered and Simpson, 194.
[14] Jeff Wallach, "The Way Golf Used To Be," *Golf Connoisseur*, Fall 2005, p. 54.

The following table (figure 2.4) gives a short overview of alternative courses.

Alternative Courses		
Type	**Description**	**Acreage Required**
Executive Course	Composed of par 3 and par 4 holes, with a total par for an 18 hole round generally between 58-66. Originally designed as alternative courses for executives who did not have time to play a regulation course.	50-100 acres
Par 3 or Short Course	A 9 or 18 hole course composed entirely of par 3 holes, which range in length from 60 to 240 yards.	20-40 acres
Pitch and Putt	A smaller version of a short course, usually they contain no holes longer than 75 yards. Generally played with only a pitching wedge and putter.	5-12 acres
Putting Course	A scaled down version of regulation course, which can have one of three basic configurations. 1) Single large green 2) Single large green with interior hazards 3) Individual holes that closely resemble "putt-putt" on real grass	2-4 acres
Practice Course	Composed of 3 to 6 regulation length holes. Usually found in conjunction with a traditional golf facility or driving range.	15-45 acres
Reversible Course	Set of holes or entire course that can be played in either the forward or backward direction.	Varies
Choose-your-own-adventure Course	Collection of tees and greens with no pre-assigned layout. For each hole, golfers simply pick a target green and hit towards it.	Varies

Figure 2.4: Table of alternative course types

Alternative routings offer an exciting opportunity to introduce people to golf in a non-traditional manner, but more of them need to make it from plans into the dirt to have a large impact on the game. Although there are serious practical concerns with some layouts, the few that have come to fruition are lauded for their fun and playability. The

myriad of possible configurations give alternative courses an adaptability not found in traditional layouts, and it is this adaptability that can help bring new people to the sport.

Putting Courses

A step down in size from an alternative course is the newly revived concept of the putting course. Putting courses, which had their heyday in the 1920s, are scaled down courses that have the look and feel of regular golf courses and should not be confused with putt-putt or miniature golf. These courses have natural grass layouts with holes ranging from 30 to 200 feet in length, and feature rough, bunkers, water hazards, and undulations just like a regulation course.

Putting courses were common around the turn of the 20th century and were a popular way for people who could not afford membership in a private country club to play. In the late 1920s, there were over 30,000 of these mini courses in the United States, but the Depression had a devastating effect on the industry, and with a few exceptions, putting courses receded from public life.[15] It was not until the golf boom of the 1990s that these designs experienced a renaissance. Courses saw them as a great draw for time strapped golfers and their families, while also providing a way to introduce the game to children and beginners.

Putting courses usually cover between two to four acres of land and have one of three basic configurations. The simplest of these configurations is a large green with holes cut in it, much like a large practice green. While there might be some topographical features to separate holes, the turf is all mown at the same height. This

[15] Rachel Zoll, "Mini Golf Enjoying Big Boom," *GOLFWEEK,* September 6, 1997, p. 19.

configuration provides the widest variety of layouts, since there are no interior hazards for people to avoid. The most well known putting course in the world, The Himalayas at St. Andrews, is set up like this. The Himalayas covers about three acres of rolling terrain and is composed of holes that range in length from 10 to 20 yards. The course starts relatively calmly, with only a few minor rises, but soon begins to snake its way over and around six foot hillocks. The following image (figure 2.5) shows the undulating topography of the course.

Figure 2.5: The Himalayas at St. Andrews, Scotland
Photo courtesy of Tom Doak

The Himalayas opened in 1867, as a way to provide recreation for the female relatives of R&A club members. At the time, golfing was considered un-ladylike, so a putting course provided a fun activity while conforming to the social norms of the era. While females long ago joined their male counterparts on the long course, the Himalayas

have maintained their popularity, regularly hosting over 60,000 rounds a year while providing a relaxing and amusing way to experience golf.[16]

A second configuration for putting courses is a large green with interior hazards. These can be in the form of rough, water hazards, or grass or sand bunkers. This configuration remains flexible in its set-up, although with fewer options than a completely open green. River City Golf Links in Fort Wayne, Indiana, shown in figure 2.6, was designed with this configuration.

Figure 2.6: River City Golf Links
Photo by Sara Mess

The final configuration a putting course can have is a collection of individual putting holes. This layout closely resembles a miniature version of a regulation golf course and is the one most reminiscent of a putt-putt course, with the holes having a set length and par. Like the second configuration, these courses can have water hazards and

[16] Patricia Emory, "The Ladies' Putting Club: Once a less strenuous alternative to "the long course," these 18 holes are among the most popular at St. Andrews," *Golf Journal*, September 1996, p. 40-43.

bunkers, although this setup provides the least flexibility of any of the layouts. The location of the hole can be changed slightly, but the overall arrangement of the course does not change. The Little Hawk Putting Course at Hawk Hollow Golf Club in Bath, Michigan, was designed like this and is shown in Figure 2.7.

Figure 2.7: Little Hawk Putting Course in Bath, Michigan
Photo courtesy of Paul Nieratko

Putting courses provide an easy way to introduce people to golf, and their small acreage requirement allows them to be located in places that would be impossible for a more traditional course. Also their ease of play and limited time requirement make them one of the most accessible golfing options available, and provide one of the simplest ways to bring non-golfers to the game.

Practice Facilities

The best place to practice golf is an empty course, but because this is a rather impractical option for most people, practice facilities fill the void. Just as there is a wide range in types of golf courses, there is an equally wide range in types of practice facilities which fall into two broad categories, indoor and outdoor.

Indoor facilities encompass the widest variety of set-ups, the simplest of which consists of an artificial turf mat to hit from and a net to stop the ball. While this set-up allows the golfer to freely swing and hit the ball, it does not allow him to see the actual flight of the ball. Manufacturers have used recent advancements in computer technology to try and overcome this problem. These programs, known as golf simulators, record a golfer's swing and impact data and translate that information into an anticipated shot. Instead of a net, the golfer hits into a screen onto which is projected the trajectory of the ball just hit, along with statistics such as carry and total distance. These golf simulators behave as interactive video games, allowing players to "see" how they hit the ball. Golf domes take this ability to see a shot a step farther. Golf domes are large inflated domes, with mats at one end and netting at the other which usually ranges from 80 to 130 yards away. The large open space gives players the ability to see at least the initial flight of their ball, allowing them to hit and observe a wider variety of shots. While indoor practice facilities are a very different experience than a golf course, they are a valuable resource, providing people a place to practice during inclement weather or winter, while only consuming a fraction of the area.

By far the most common practice facility is the driving range. A driving range, or practice range as it is also called, consists of a teeing area and a large open area to hit

into. Variety in outdoor ranges is found in both the teeing area and the field into which people hit. The teeing area can be synthetic mats or natural grass and composed of one or more levels, while the area to hit to can vary from an open field with a few signs denoting distance to a well defined landscape with greens, bunkers, and water hazards.

In The Anatomy of a Golf Course, architect Tom Doak states that "the practice facility should give the golfer opportunity to practice as many as possible of the shots he will find on the course."[17] Professional golfer Peter Oosterhuis adds that ranges "should look like real golf problems".[18] To this end, ranges should provide actual golf targets for the golfer, much like a real course, allowing him to aim, align, and visualize shots. Because half or more of the shots in a typical round of golf are played around the green, the best practice facilities will also provide a short game area so the golfer can practice these shots. These areas usually contain one or more chipping greens, an area to practice bunker shots, and a practice green. By presenting a place to try all these possible golfing situations, a practice facility allows the golfer to gain experience and prepare for actual course conditions, often at a fraction of the cost.

[17] Doak, 189.
[18] Richardson, 351.

Benefits of Golf

The game of golf provides both physical and mental benefits to those who play it. In an article published posthumously in *Golfdom Magazine*, Alister MacKenzie wrote, "The more I know about golf and golf courses the more convinced I am of its influence on the health, the happiness, and owing to its effect on mental as well as physical fitness, the prosperity of the community."[1] But while golfers have been extolling the benefits of the game for years, until recently, most of the benefits of golf were anecdotal instead of factual; however this is beginning to change. Research for this project reveals that the benefits of golf fit into three broad categories: 1) Motor skills and physical development, 2) Critical thinking and moral development, and 3) Lifetime health.

Golf and Motor Development

While some critics deride golf for not being athletic, in actuality swinging a club involves many of the major muscle groups in the human body. Properly swinging a golf

[1] Alister MacKenzie, "Experts Needed," in *Masters of the Links*, ed. Geoff Shackelford (Chelsea, MI: Sleeping Bear Press, 1997), 75.

club engages the shoulders, upper back, and core muscles which include the abdominals, obliques, lower back, glutes, quads, and hamstrings.[2] These muscles are the same ones participants use when engaged in other athletic activities such as throwing a baseball or hitting a tennis ball. While science is still debating the influence of core strength on athletic performance, in the sports and fitness world the benefits of core strength exercises are accepted as fact. Core exercises seek to strengthen the muscles of the torso creating a balance that enables athletes to stand tall, limbs in alignment. These exercises also involve stretching and balance routines that enhance flexibility, and experts expect core exercises to gain favor for avoiding muscular-skeletal pain and injury just as cardiovascular exercise is promoted for heart health.[3] While golf itself is not a core exercise, it engages many of the same muscle groups and could be used in conjunction with them to provide participants with greater muscular-skeletal stability.

Development of the muscles used to play golf works hand-in-hand with the development of the participant's motor skills. While at first glance swinging a golf club can look like a simple task, proper execution requires the coordination of a wide variety of motor skills. The most basic golfing skill, putting, requires the participant to use cross-lateral movement, hand-eye coordination, balance, and striking with long handled implements. A full golf swing requires additional movement concepts such as force, effort, and weight transfer.[4]

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[2] Michael Vorkapich, Michigan State University Strength and Conditioning Coach, email communication, January 13, 2010.
[3] Kevin Helliker, "Hit the Floor and Give Me a Dozen… Pillar Bridges," *Wall Street Journal*, March 16, 2010, p. D1, D2.
[4] John Weeks and Susan Nye, "Developing the Four Domains Through Golf," *Virginia Association for Health, Physical Education, Recreation, and Dance* 12 (Spring 2008): 12.

Golf, Critical Thinking, and Character Development

As well as being linked to muscle development, significant associations exist between the acquisition of motor skills and critical thinking.[5] The game of golf presents participants with both a physical and mental challenge. It requires problem solving, strategic play, and decision making, and golfers must adhere to strict standards of sportsmanship and integrity. Jay Vasil, in his article "The Four Keys of Teaching Golf in Elementary School" advocates teaching the game to students because it provides instructors "a means of teaching character education, etiquette, and interdisciplinary concepts such as math, in addition to physical education objectives such as motor skills, coordination, and flexibility."[6]

Many youth golf programs use the game as an educational tool, whether explicitly or implicitly. The First Tee states that the goal of the program is "to impact the lives of young people by providing learning facilities and educational programs that promote character and life-enhancing values through the game of golf."[7] Franklin Greene, director of the LPGA Urban Youth Program in Wilmington, Delaware, also pulls no punches about the goals of their program. "We try to teach them a lot more than just a golf swing. It's a life-skills program."[8] Other programs are more subtle about their educational approach. Many of these programs instead focus on golf and golf etiquette, using the game and its customs to instill lessons of honesty, integrity, and sportsmanship.

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[5] Ken R. Lodewyk, "Fostering Critical Thinking in Physical Education Students," *Journal of Physical Education, Recreation & Dance*, 80.8 (October 2009):14.
[6] Jay Vasil, "The Four Keys to Teaching Golf in Elementary School," *Strategies*, 19.3 (January/February 2006), 7.
[7] "The First Tee", retrieved February 12, 2009.
[8] Evan Rothman, "Race to Growth: Minorities want their place in the game, from the course to the boardroom, and the time is right," *Golf Pro*, June/July 1997, p. 15.

The sport can be used to do more than just teach lessons. It also helps develop the problem solving and critical thinking skills of the players. These are needed at all levels of play, but become more developed at higher skill levels. For example, a seemingly simple chip shot from the fairway to a green sloping towards the player with the hole cut in the back grows in complexity with greater knowledge and skill. A beginning golfer might only know how to hit a basic pitch shot, but needs to account for how the slope of the green will effect the shot in order to correctly judge where to land the ball so it ends up near the hole. A more advanced player might have a wider selection of shots from which to choose. They could use a high-arching lob shot, a more traditional pitch, or a bump-and-run with a lower lofted club.

These shots vary greatly in their approach to the problem. A high-arching lob shot is hit with a highly lofted club and allows the player to fly the ball close to the hole and stop it. Since this type of shot carries most of the way to the hole, the surface and slant of the green have less of an effect on it, but this shot is also the most delicate, requiring the player to correctly judge the lie of the golf ball and how it will react in the air once hit. In a traditional pitch shot, a wedge is used to hit the ball about halfway to the hole and then allowed to roll the rest of the way. Since the ball is on the green more, this type of shot requires careful consideration of where the ball will land and how it will react once on the green, but the shot itself is less effected by the lie of the ball and allows greater leeway in the swing. The final shot type is a bump-and-run. This is usually hit with a lower lofted club than the other two shot types, such as an 8 or 9 iron, and the ball rolls a majority of the way to the hole. This shot almost behaves as a long putt and is on the green most of the time, so it requires a good understanding of how the ball will roll

once on the putting surface. The lie of the ball in the grass is also important for this shot, since the amount of grass between the clubface and the ball at contact can greatly effect the distance it travels. Each of these shots has advantages and disadvantages, and these, along with weather conditions, course conditions, and the player's confidence level need to be taken into account when choosing which one to play.

Golfers are faced with similar dilemmas throughout a round that require analysis, critical thinking, and problem solving. Ken Lodewyk in "Fostering Critical Thinking in Physical Education Students" explains how a successful golf shot requires different types of knowledge. Awareness of various golf shots, equipment, terms, and concepts uses declarative knowledge; understanding how the ball should be struck uses procedural knowledge; comprehension about how to adjust to obstacles – such as hitting from a bunker – uses strategic knowledge; and the comprehension of when to apply each of these is conditional knowledge.[9] Each of these types of knowledge becomes more developed the higher the player's skill level. As just demonstrated, a golfer facing a simple chip shot uses declarative knowledge when deciding what type of shot to play, procedural knowledge to decide how to execute the shot, strategic knowledge to adjust to the slope of the green and the lie of the ball, and conditional knowledge to tie them all together.

While problem solving and strategic play are elements of the game itself, character development in golf comes more from the accepted rules and customs of play. In the chapter "Can Sports Build Character?" found in *Character Psychology and Character Education* authors Shields and Bredemeier discuss the role sports play in the

[9] Lodewyk, 14.

development of a participant's moral character. While they focus mainly on team instead of individual sports, some of their findings can be applied to golf. In the article they discuss the communities-of-character approach, which puts forward that the context of social relations helps people develop their character, and the shared norms and values of the group are important influences on what the individual comes to value and how they act.[10] Since the game of golf values integrity, sportsmanship, and etiquette, those values will be passed on to those learning the game.

Shields and Bredemeier's findings also account for some of the differences in how people approach the game. They state that "each sport tends to have its own subculture and implicit moral norms, and each individual sport team develops its own subculture and implicit moral norms."[11] While golf does not technically have individual sports teams, it does have groups of people who regularly play together. These groups form their own norms within the game, and these "personal norms" vary from group to group. One group might be more lenient, allowing for a mulligan after a poor shot and gimmes for short putts, while others adhere strictly to the rules, accounting for every stroke and penalty. The authors conclude that "as a sport community develops its own unique character, rooted in morality and conceptions of the good, it can make a positive contribution to the character development of each of its participants."[12]

For many people, especially those who began to play the game at an early age, golf's lessons help define them. The ability of the game to instill positive virtues and

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[10] David Light Shields and Brenda Light Bredemeier, "Can Sports Build Character?" in *Character Psychology and Character Education,* ed. Daniel K. Lapsley and F. Clark Power (Notre Dame, IN: University of Notre Dame Press, 2005), 125.
[11] Shields and Bredemeier, 133.
[12] Shields and Bredemeier, 134.

values in its participants is one of its most appealing traits. Along with lifelong lessons, golf also benefits the lifelong health of its participants.

Golf and Lifetime Health

Golf is truly a lifetime sport. Its appeal spans generations, and it is the only sport in the world where players of differing ability can meet and competitively play the same game at the same time. This unique characteristic of golf allows families and friends to play together and is part of its broad appeal. Golf, as Roy Clumper explains is "always a challenge, seldom mastered, and played by millions of men and women into their twilight years, golf is truly *the* lifetime sport and a wonderful way for youngsters to maintain an active and healthy lifestyle."[13]

The medical benefits of sports and physical activity are well known – enhanced endurance, greater bone density, more years of healthy life along with a decreased risk of cardiovascular disease, depression, and certain cancers – so it is imperative to get and keep children interested in things that will keep them active. Golf, as a lifetime sport, is an activity they can carry over into adulthood. A study by Carrel, et al. found that overweight children lost significantly more body fat when engaged in lifetime activities as opposed to competitive team sports.[14] For children, fitness can benefit more than just their physical health. The California Department of Education in 2005, analyzed results from the statewide Physical Fitness Test and California Standards Tests and found a

[13] Roy A. Clumpner, "Golf," *Sport Progressions* (2003): 50.
[14] Randal E. Peters, "Case Studies of three schools exemplifying wellness and lifetime fitness models," (Ph. D. thesis, Drake University, 2008), 52.

"strong positive relationship between fitness and achievement."[15] Both of these studies suggest that playing golf can provide much more than simple recreation for children learning the game.

Children are not the only ones who reap the benefits of golf. Published in the *Scandinavian Journal of Medicine and Science in Sports* in 2008, authors Farahmand and Ahlbom compared the health data of 300,000 Swedish golfers to that of non-golfers with the same sex, age, and socioeconomic status in "Golf: A Game of Life and Death – reduced mortality in Swedish Golf Players". They found that golfers had a 40% lower death rate than the average population. This equates to an increased life expectancy of five years, and golfers with the lowest handicaps showed the greatest difference with their non-golfing peers.[16] While the study is not perfect – the authors admit that the study does not rule out other potential factors – the large study size and correlation between skill – and presumably time spent golfing – and decreased death rate offer a strong argument that the game is at least partially responsible.

Even in life's waning stages, golf provides benefits beyond companionship and physical activity. In the article "Memories Slip, but Golf is Forever" author Matthew Futterman profiles a long term care facility in Belmont, California, and their use of golf outings as behavior therapy for Alzheimer's patients. The participants had all golfed when younger, but are now suffering from mid-to-late stage Alzheimer's disease. Once a week, the caregivers take the patients out to a local golf facility where simple drills and exercises have been set up for their use. Their caregivers report that these outings help

[15] Peters, 16.
[16] B. Farahmand and A. Ahlbom, "Golf: a game of life and death – reduced mortality in Swedish golf players," *Scandinavian Journal of Medicine and Science in Sports*, May 2008.

the patients feel competent and generate periods of lucidity, similar to the effect dancing or playing music can have.[17] While this was not a scientific study, the story does offer hope that an activity as simple as swinging a golf club can positively impact the quality of life for these patients.

Golf provides benefits in a variety of areas for those who play it, including motor and physical development, critical thinking and moral development, and lifetime health. This wide assortment of mental and physical benefits is one of the key attractions of the sport and a strong argument as to why the game should be more easily accessible to all.

[17] Matthew Futterman, "Memories Slip, but Golf is Forever," *Wall Street Journal*, April 8, 2009, p. D1, D8.

Program Case Studies

Programs to introduce individuals to the game of golf come in many different shapes and sizes. I examined three of these programs and interviewed their directors about their facilities, programs, successes, and challenges to help determine what makes a great learning facility.

First Tee of Lehigh Valley at Marvine

The First Tee of Lehigh Valley at Marvine is located in Bethlehem, Pennsylvania, slightly more than an hour north of Philadelphia. The facility opened in 2006, and is adjacent to the Marvine Housing Project. It is situated on just 2.5 acres of land encompassing an artificial surface short game course, three natural grass holes ranging in length from 50 to 90 yards, and a pole barn that contains a classroom, program offices, an indoor putting surface, and seven indoor hitting bays. Because of its limited acreage,

participants of the First Tee of Lehigh Valley use a restricted flight golf ball called a birdie ball, shown in figure 4.1, when hitting outside.

Figure 4.1: Birdie Ball
Photo courtesy of Camie Mess

Tom Fenstermacher, Director of Golf for First Tee of Lehigh Valley, says that the program serves around 500 children a year, ranging in age from 8 to 16. Classes are an hour and a half long, and participants are grouped into par, birdie, and eagle levels based on their age and ability. Each level brings with it additional practice and playing privileges, and to progress from one level to the next, students must show proficiency in ten skills, six of which are golf based and four of which are life based. Students in the program also have access to a regulation municipal course 1.5 miles away.

The small size of the First Tee of Lehigh Valley at Marvine affects the finances of the program. Since there is no outside range or course, the facility does not attract use from golfers outside the program, whose play might help defray costs. This means the facility relies solely on donations and grants to remain operational.

In my interview with the director, we discussed some of the advantages and disadvantages of the facilities and the First Tee program. One of the biggest advantages of the facility he mentioned was its location. Although being in the Marvine Housing Project severely restricted the available acreage, its location is easily accessible allowing most of the participants to walk to the program. For this reason, the Marvine site was selected over larger sites that were more difficult to access. Also, the site is right next to the Marvine Boys and Girls Club, which provided the program with a readymade supply of participants. The First Tee program provided a good framework for the participants to learn the game, and while the director approved of their emphasis on school and grades, he sometimes felt the program neglected lessons from golf, showing only how life lessons could be seen in golf instead of using golf to teach life lessons.

Although the location of the First Tee facility provides some of the biggest advantages, it is also the biggest disadvantage. Because of the restricted area, classes must be kept small because they are limited to the indoor hitting bay. Outside, there are only three short holes, which again limits class size. Finally, Fenstermacher noted the artificial surface short game area was not adding much to the facility. It was in a fenced off area, with a putt-putt like course inside. He said it was rarely used and thought a small green to teach chipping and putting would have been a more productive use of the space.

Overall, the First Tee of Lehigh Valley demonstrated the importance of location over size when designing a facility. Easier access trumps area if your main goal is to introduce more people to the game. It also demonstrated the importance of a “real” feel

to the facility. The indoor area and outdoor holes were well utilized, but the artificial short game area, which looked contrived, was basically ignored.

Lifetime Sports Academy

The Lifetime Sports Academy is located at MacMillen Park in Fort Wayne, Indiana, and is run by the city's Parks and Recreation Department. The program, which began in 1998, runs for eight weeks during the summer and offers participants free lessons in golf, tennis, and swimming. For golf, the facilities include an outdoor driving range, a short game practice area, a practice putting green, a 9 hole par three course, and an 18 hole executive course, all of which cover a total of 127 acres. These golf facilities were all in place before the Lifetime Sports Academy began with the exception of the short course, which opened in 2002. This course, known as the Mad Anthony IIIs, was designed specifically for the Lifetime Sports Academy and consists of three easy, three medium, and three hard holes which range in length from 80 to 195 yards. The course also has what is referred to as a junior par, where par on the hole changes depending on the age of the player. For Lifetime Sports Academy participants, this ranges from par 27 to par 35.

Rick Hemsoth, Director of Lifetime Sports Academy, says the program serves between 1,500 – 2,000 children a year and runs five days a week from 9am to 3pm. Their goal is to teach sports that model behavior, a subtle but important distinction from the First Tee philosophy that emphasizes behavior through golf. Like most junior programs, participants are divided into par, birdie, and eagle levels based on age and ability, and can earn additional playing privileges when they pass certain skills test. Once

participants have passed the basic skills tests, they are put in the par level. At that level they can play the Mad Anthony IIIs short course for free. The birdie level earns the participant playing rights to the executive course at MacMillen Park, and the eagle level gives them access to Foster Park Golf Course, a regulation 18 hole course at one of the other city parks.

Lifetime Sports Academy is free for all participants, but costs about $200,000 each year to maintain. Right now, most of that cost is covered by private donations and funds from the Parks and Recreation Department budget, but fundraising is still a concern for Hemsoth. The executive course does generate revenue, but the newly built short course does not turn a profit, although in recent years the Mad Anthony IIIs has been providing steadily more revenue as kids involved in the program bring their parents out to play.

Hemsoth has been involved with Lifetime Sports Academy from the beginning and discussed some of the ups and downs of running the program. For him, the biggest accomplishment has been the extreme popularity of the program. Lifetime Sports Academy started in 1998, and by the third year had over 1,500 children participating. This phenomenal success allowed them to speed up their long range plans, and they built the short course in 2002, eight years before they had originally anticipated. The program has also been a boon to local high school programs. Lower income, inner city schools that have traditionally had difficulty establishing and maintaining a golf team now have more participants than many of the suburban schools. Lifetime Sports Academy has also contributed in some unexpected way. MacMillen Park has become one of the safest, vandalism free parks in the city since the program began. Hemsoth attributes this fact to

the sense of ownership participants and nearby residents now take in the park and the program.

While there have been noticeable successes for the Lifetime Sports Academy, the programs is not without is challenges. Although the park is safe, some parents are still leery of allowing their children, especially girls, to participate. In addition, rule changes by the Indiana High School Athletic Association that allow practices and contact between high school coaches and their team outside of the regular season have greatly impacted numbers, taking away many of the kids who participate in multiple sports.

The Lifetime Sports Academy demonstrates just how popular the sport can be when people are given access to it. The fact that many participants bring their parents out to play show there is room for the sport to grow outside of the junior ranks and reinforces golf as an intergenerational activity.

Button Hole

The final case study is the Button Hole in Providence, Rhode Island. Located on the site of an old gravel pit, the facility opened in 2001, and is run by the Golf Foundation of Rhode Island, a non-profit group. The Button Hole rests on 26 acres and consists of a double ended practice range with grass and synthetic tees, a 9 hole short course, 2 practice putting greens, and a clubhouse which contains the golf shop, foundation offices, and indoor lesson space. The facility is also adjacent to the Fred Lippett Woonasquantacket River Greenway, part of a network of bike trails running across the state of Rhode Island.

The Button Hole has a philosophy of teaching lessons in life through lessons in golf, a message they share with close to 3,000 children a year in their school and summer programs. Dan Gaughan, Head Golf Professional and Golf Program Director, explained how similar to other programs, junior participants are grouped by ability level, and both golf skills and etiquette lessons are taught at each level. The course also has a Wheels and Heels program, designed to accommodate disabled golfers. Each hole has at least one set of ADA accessible tees, and the program has a core group of golfers who regularly play. While the Button Hole is geared towards kids, Gaughan was quick to point out that the course was not designed specifically for kids and that they are seeing an increasing number of adults coming out to play.

The Button Hole is run by the Golf Foundation of Rhode Island, a not-for-profit 501(c)(3) organization. Many local clubs and individuals donate clubs, balls, and clothes for the participants to use, and in fact, they have so many donations that after outfitting all of the participants the course sells some of the remaining items, putting the proceeds back into the program. In addition to the sale of donated items, the money needed to keep the program running is obtained thought a combination of green fees, practice fees, grants, donations, and charity events.

The Button Hole has seen great success since opening eight years ago, and the USGA now uses it as a model for other not-for-profit organizations trying to start a golf facility. The biggest accomplishment for the Button Hole is its use by the entire community, not just juniors. Part of this is due to its careful market analysis by the Golf Foundation of Rhode Island. The Button Hole wanted to be accessible and affordable for those who would normally not have the opportunity to learn the game while attracting the

core playing customer to help offset costs. To achieve this, they identified two underserved areas in the Providence golf market. First, there were no beginner-friendly, affordable facilities for people to learn the game and second, there were very few practice facilities for people to hone their skills, whether they were newcomers or not.[1] The Golf Foundation then used this information when designing their facility, resulting in a course that attracts adults because it is in good condition and can be played in little more than an hour, and seniors and beginners because they can come and play without being overwhelmed. Also, the Button Hole hosts numerous charity events, which bring in customers that might not normally frequent a short course.

Although the Button Hole has been very successful, there are a few things Gaughan would like to change. The biggest challenge he mentioned was the fact that it is a par 3 course. He wishes there were a few longer holes, and at least one par 4, so the kids could hit driver somewhere other than the range. This is more of a problem here because unlike the other sites I visited, the Button Hole does not have a regulation course serving as a partner facility, where participants could work more extensively on developing their strategic course skills.

The Button Hole really showed the importance of designing for what the market needs. When I visited the course there were seniors, women, young adults, and small children all playing, showing the investment and involvement by the whole neighborhood. By not designing for a specific group, but keeping their main goals of accessibility and affordability in mind, they created a place for the entire community.

[1] Hurd, 7.

Additional Interviews

In addition to visiting the three existing programs outlined above, I also spoke to Sam Puryear, former director of the East Lake First Tee in Atlanta, Georgia, which at the time was the largest First Tee site in the United States, and Brandon Johnson, who worked with the USGA helping organizations develop their design plans for First Tee sites.

In talking with these gentlemen about the facilities needed to introduce people to the game, Puryear was a strong advocate for an extensive short game area. He believes that the best way to keep beginners interested is to provide them with early success, and that short 30 to 40 yard holes allow players to develop confidence that they can transfer to more challenging situations. Johnson is more concerned with the long-term viability of many First Tee sites. The First Tee program comes with many requirements attached, so courses designed for First Tee tend to become strictly kids courses, making it difficult to draw people and revenue outside of the times classes are in session. Instead, Johnson favors taking existing facilities and making them more junior friendly.

In the interviews both Puryear and Johnson stressed the idea that the facility should not be "dumbed down" for juniors, and that hazards such as sand and water were necessary to learn all aspects of the game. They also mentioned that a playing option so participants could tackle "real" golf problems and work on their course management skills was crucial. These interviews reiterated what I had observed at the existing programs and helped solidify objectives for the design.

Key Features

These case studies and interviews brought to light some key features that will need to be addressed in this design.

1) A course that is kid friendly, but not specifically a kid's course is best. This allows it the entire community to use it and have a sense of ownership, instead of a just small segment. It also helps create more revenue and insures that the facility can be used year-round.

2) Making sure the course is not "dumbed down" for juniors. Easier routes to the green and hole placements are fine, but to be successful, the design needs to present challenges for all levels of golfers.

3) A playing option is needed, whether this is at the same location or at nearby and easily accessible partner facility. Practice facilities and golf courses offer different perspectives on the game and the shot selection and decision making skills needed on a course cannot be learned on a practice range alone.

4) It is easiest to keep kids interested if they have early success, and it is easiest to teach beginners short game skills. Combining these two lessons suggests that an extensive short game area, a few short holes, or even a practice area that can be converted to a playing area will help develop the confidence and abilities of beginning participants.

The Site: Past, Present, and Future

Douglass Park and the Monon Railyard are located in the east central Indianapolis neighborhood of Martindale-Brightwood, just north of the I-65 and I-70 interchange. The following maps show the location of the site in relationship to the city of Indianapolis (figure 5.1), the surrounding neighborhoods (figure 5.2), and the immediate context (figure 5.3).

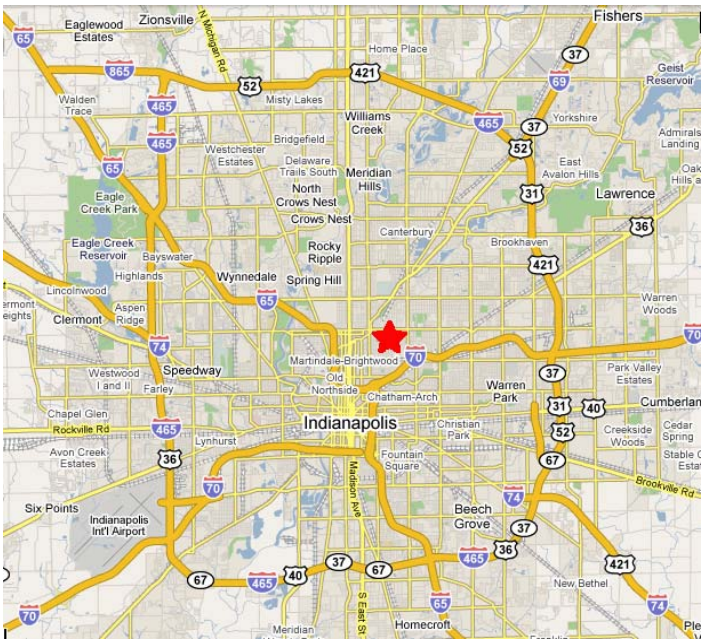


Figure 5.1: Relationship to City, from Google Maps

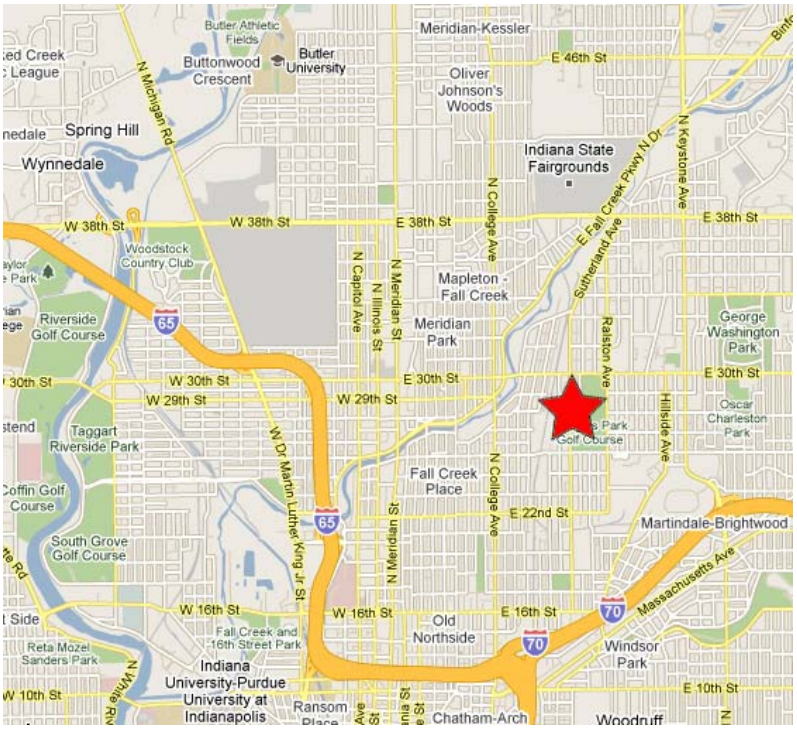


Figure 5.2: Neighborhood Context, from Google Maps

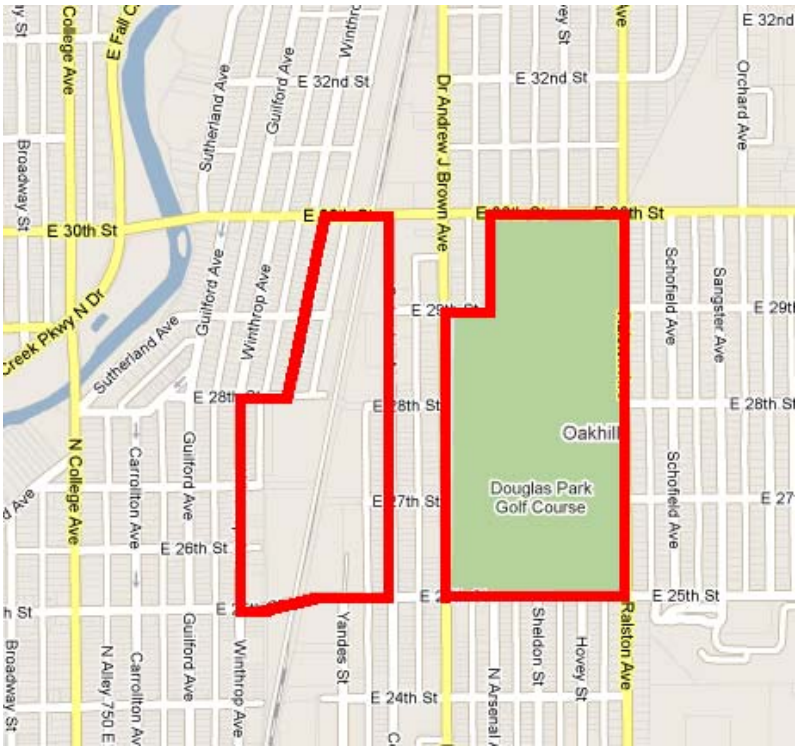


Figure 5.3: Immediate Context, from Google Maps

Past

History of Martindale-Brightwood

Brightwood began as a working class suburb of Indianapolis in the mid – 19th century. The Chicago, Indianapolis & Louisville and Lake Erie & Western railroad lines running through the town provided the initial catalyst for growth in the area and by 1902, eighty percent of the population counted on the railroad for their livelihood. As the century progressed, the economy of the area gradually became less dependent on the railroad as factories sprang up along the lines attracting many African-Americans and European immigrants. In 1944, Brightwood was no longer a stop on the rail line, but the population of the area continued to grow, reaching a peak of 25,702 in 1960. That same year, Brightwood lost its final railroad connection when the New York Central moved all remaining rail operations south to Avon, Indiana. A larger blow came a few years later, with the construction of Interstate 65 and Interstate 70 through the heart of the city. The new interstates cut the neighborhood in half, accelerating the migration of residents to the suburbs and causing many businesses to follow. By 1976, highway construction was complete, but the neighborhood was falling apart. From 1960 through 1990 the population of Martindale-Brightwood lost an average of 20% per decade, and by 1990, the population of the area was 11,289, barely half of what it had been sixty years before.[1]

The new highway also drastically effected the composition of the neighborhood. African-Americans have always had a strong presence in Martindale-Brightwood, but in the first half of the century, there was also a significant population of European descent.

[1] *Martindale Brightwood Timeline: 1872-1994* (Indianapolis: The Polis Center, 1994), 2-8.

By 1980, this presence had almost disappeared, with African-Americans comprising over 95% of the population,[2] a ratio that continues today.

History of Douglass Park

Douglass Park, the main city park in the Martindale-Brightwood neighborhood, has a long and storied history. In the early 20th century, African-Americans were not allowed or not welcome at many of the Indianapolis city parks, but the black community felt their tax money entitled them to comparable facilities. In response, the city obtained a section of land from the J.H. Claypoole farm, and in 1921, Douglass Park was opened to serve the African-American population in Martindale and throughout the city.[3] The park had a few ball fields and a fight arena, but its main attraction was a swimming pool. Although the park was popular, African-Americans felt that it still lacked the amenities of other parks, and so in the fall of 1926, they presented a petition to the Indianapolis Park Board for the establishment of a golf course at Douglass Park. The Park Board responded by placing six tomato cans in the pasture north of the swimming pool.[4] Although primitive – the *Indianapolis Recorder,* the local African-American newspaper, described the layout as "just as God made the land, rough, uneven, uncut grass, trees in the fairways, and even the 'teeing ground' is like a bunker"[5] – the course was hugely successful because African-Americans were allowed to play the course at any time. Most courses during that era had an outright ban on African-Americans playing, and the few that did allow play limited access to the course to certain hours of the day. Douglass Park

[2] Neighborhood population and composition data can be found in Figure C.2 in Appendix C.
[3] Martindale Brightwood Timeline, 3.
[4] Morris Taylor, "The Sport Trail," *Indianapolis Recorder*, March 17, 1928, p.6.
[5] Morris Taylor, "The Sport Trail," *Indianapolis Recorder*, January 28, 1928, p.6.

Golf Course allowed black golfers to play at any time, and because of this drew golfers from as far away as Cincinnati, Detroit, and Chicago.[6]

In the summer of 1927, the community again appealed to the Park Board, this time for the purchase of additional land so the course could be enlarged.[7] The additional acreage was obtained that fall and the Board promised the residents a new nine hole course for Douglass Park would open in early 1928. When spring came and no work had been completed on the new course, the *Recorder* criticized the Park Board for their inactivity and stated that "if the course at Douglass Park is not ready when the other Municipal courses open, prepare to meet them [African-Americans] at South Grove, Riverside, Coffin, Sarah Shank or any other Municipal courses."[8] Apparently the threat of African-American golfers invading the other city courses was enough to persuade the board to begin renovations. Almost immediately, four greens were finished with fairways and bunkers mowed and roughed in, but the work stalled again. Only after an additional outcry from the *Recorder* were the five other holes completed, and Douglass Park Golf Course finally opened as a nine hole facility in the summer of 1928.

After its completion, Douglass Park Golf Course was a large source of pride in the African-American community. In 1932, it hosted the United Golfers' Association Negro National Tournament, one of the four major tournaments on the Negro Circuit, drawing African-American golfers from twenty states.[9] The course at Douglass Park also served as a cultural touchstone for African-Americans in Indianapolis, attracting all the big celebrities that came through the city. Sprinter Jesse Owens, singers Sarah Vaughn

[6] Johnny Green, Jr., interview by author, Indianapolis, Indiana, August 18, 2009.
[7] Morris Taylor, "The Sport Trail," *Indianapolis Recorder*, April 7, 1928, p.6.
[8] Morris Taylor, "The Sport Trail," *Indianapolis Recorder*, March 17, 1928, p.6.
[9] "John Denby Wins National Pro Golf Title," *Indianapolis Recorder*, September 10, 1932, p.6.

and Bessie Smith, and bandleader Billy Eckstein all visited the course, but perhaps the most celebrated and frequent visitor was boxer Joe Louis.[10]

As well as attracting celebrities, Douglass Park has produced a few of its own. George Roddy, the first African-American inducted into the Indiana Golf Hall of Fame, played at Douglass and coached the golf team at Crispus Attucks High School there for twenty-five years. Johnny Green Sr., the first black PGA professional in Indiana worked at Douglass for almost fifty years, and even the world's most famous golfer, Tiger Woods, has ties to Douglass Park, stopping to visit the course twice in the late 1990s.

History of the Railyard

The railroads played an integral part in the development of the Martindale-Brightwood neighborhood. The two main tracks running through the area were owned by the Chicago, Indianapolis & Louisville Railway, now more commonly known as the Monon, and the Lake Erie & Western Railroad, which merged with the Nickel Plate Line in 1922.

The Monon Railroad had the first railyard in the area, which contained numerous tracks for the storage of railcars and materials, as well as a large brick roundhouse and turntable. Roundhouses were used by the railroads as a place to service locomotives. They were given their name because of their semi-circular or circular shape and were usually located adjacent to a turntable, a device used to turn rail cars around. The Monon Railyard was enormous in scale, and stretched from 23rd Street all the way up to 28th.

[10] Johnny Green, Jr., interview by author, Indianapolis, Indiana, August 18, 2009.

By 1927, the Nickel Plate had also built a railyard, complete with roundhouse and turntable, on their side of the tracks. This facility was much smaller than the Monon Yard, only extending from 27th Street up to 28th.

The following image (figure 5.4) is an aerial photograph taken in 1956 showing both the Monon and Nickel Plate railyards in use.

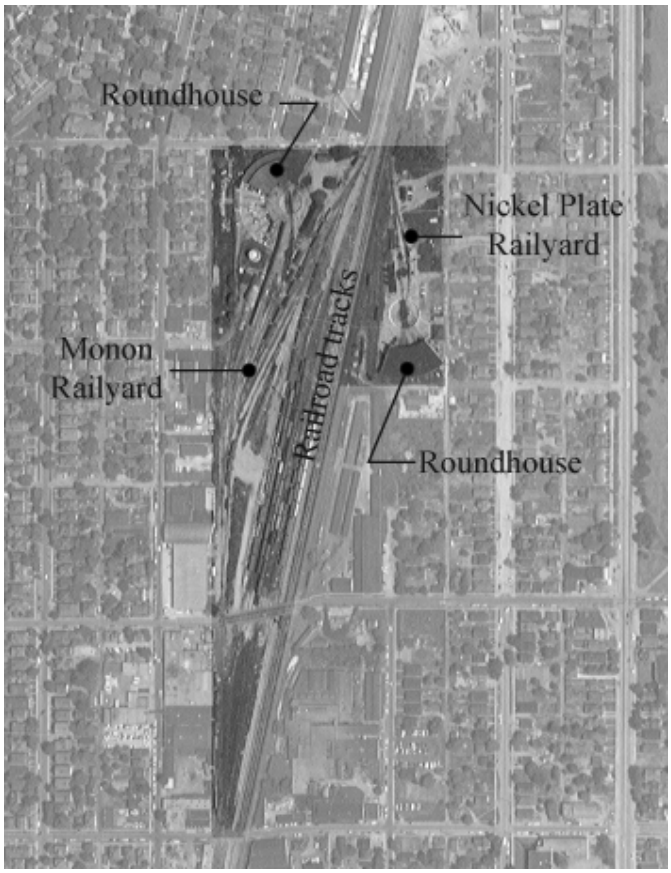


Figure 5.4: 1956 Aerial Photograph of the Monon and Nickel Plate Railyards, courtesy of the IUPUI Digital Collections

To see maps of how the boundaries of Douglass Park and the railyards changed over the years, please refer to Figures B.1, B.2, and B.3 in Appendix B.

Present

Martindale-Brightwood Now

The neighborhood surrounding Douglass Park has declined in recent years and is plagued by environmental contamination, vacant land, abandoned homes, high crime, and high unemployment.[11] The last data available, from the 2000 census, shows a population in Martindale-Brightwood of 8,204, 95.7% of it minority. This is an almost 40% decrease in size from 1990. In addition to a rapidly shrinking population, the demographics of the Martindale-Brightwood neighborhood differ from those in the rest of Indianapolis. In Martindale-Brightwood, 30.4% of the population is under 18 and 15.1% is over 65, both of these values are higher than normal for the city, which averages 26.7% and 10.8% respectively.[12] This population distribution means that facilities designed for Douglass Park or the railyard will need to account for these user groups and their golfing abilities. Generally, senior and junior golfers do not hit the ball as far or escape hazards as easily as other players, so additional tees and a relatively hazard free route to the green will be important to include.

The neighborhood also struggles with a high poverty rate and low-educational attainment among its residents. In Martindale-Brightwood 28.2% of the population lives below the poverty line, almost twice the average for the rest of the city, and over half of the households earn less than $25,000 a year. In addition, just under three-quarters of the adult population in Martindale-Brightwood has a high school diploma or less, compared

[11] Dave Ryan, "EPA Announces New Support for Sustainable Communities: New office, pilot programs to help communities minimize their environmental impact and increase economic opportunity," EPA.gov, February 5, 2010.
[12] "SAVI Interactive: Information for Central Indiana Communities," savi.org, accessed March 9, 2010.

to slightly less than half the population of Indianapolis.[13] This means the neighborhood residents do not have much extra money to be spending on recreation. Any facility will need to be kept affordable, and the more uses it can have the better – for example, holding GED courses in the community center or locating a football or soccer field at the back of the driving range. Also, a facility with a compact footprint will allow for greater commercial development near the railstop, drawing a greater variety of people.

The population exodus and low household incomes have affected the appearance of the neighborhood as well. Indianapolis as a whole has a problem with vacant lots, they compose 15% of the lots in the city, and the problem is especially acute in Martindale-Brightwood.[14] The following map, figure 5.5, shows the large quantity of vacant lots located around Douglass Park and the Monon Railyard.

Figure 5.5: Vacant lots near Douglass Park and Monon railyard, from SDAT charrette, Fall 2009

[13] "SAVI Interactive: Information for Central Indiana Communities," savi.org, accessed March 9, 2010.
[14] "SAVI Interactive: Information for Central Indiana Communities," savi.org, accessed March 9, 2010.

In addition, boarded-up houses sit on some of the occupied lots, especially those west of the railyard, further lowering the population density of the area.

Although Martindale-Brightwood has been losing population, the religious institutions in the area remain strong. There are over two hundred churches in the neighborhood, ranging from small house churches to large congregations. Many of these religious institutions are trying to help stabilize the area, providing soup kitchens, job training, and supplying financing to build houses in the neighborhood.

Other organizations are working to improve the schools in the area. There are two charter schools nearby, a Knowledge is Power Program (KIPP) middle school, at 30th and Orchard Ave that serves grades 6-8, and the Project School located at 22nd and Yandes St. serving grades K-8. There will also be a charter high school opening in the near future in the same building as the Project School. In addition, IPS 56, Francis Parker Elementary, at 24th and Dr. Andrew J Brown Ave is a Montessori magnet housing grades K-8, whose students have performed above the state average on standardized tests the past eight years.[15]

[15] "School Snapshot: Francis W Parker School 56," http://mustang.doe.state.in.us, accessed March 11, 2010.

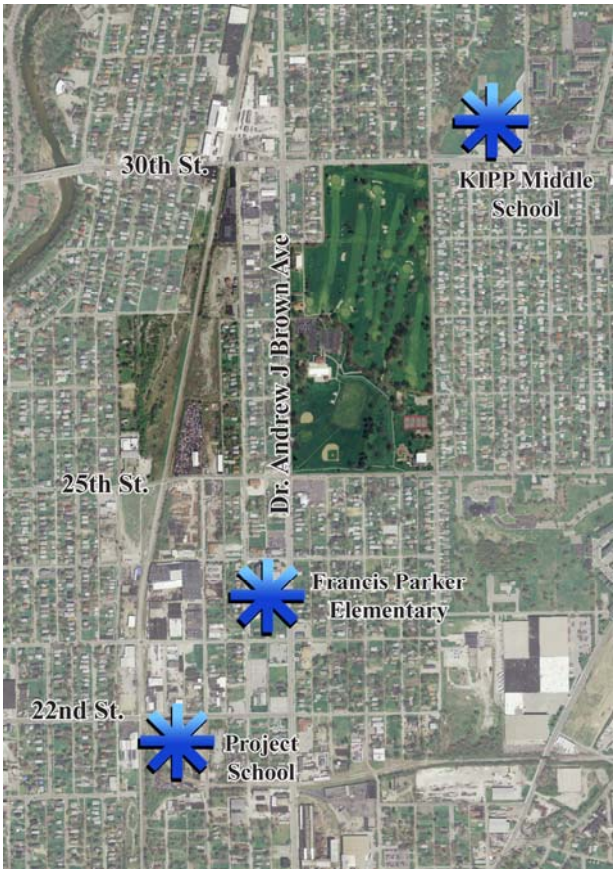


Figure 5.6: Location of schools near Douglass Park

While the Martindale-Brightwood neighborhood is presently struggling, community leaders are actively engaged in trying to improve the conditions. They have started social outreach programs to train and educate residents and implemented new tax incentives at a nearby industrial park to help attract businesses to the area. They hope that these programs along with the strong existing religious institutions and improving schools will draw people to the neighborhood and help it regain its former vitality.

Douglass Park Golf Course

The golf course present at Douglass Park today has changed only slightly from the original nine-hole course that opened in 1928. The following aerial photographs from

1937, 1956, and 2008 (figures 5.7, 5.8, and 5.9 respectively) show how the course has evolved over the past eighty years.

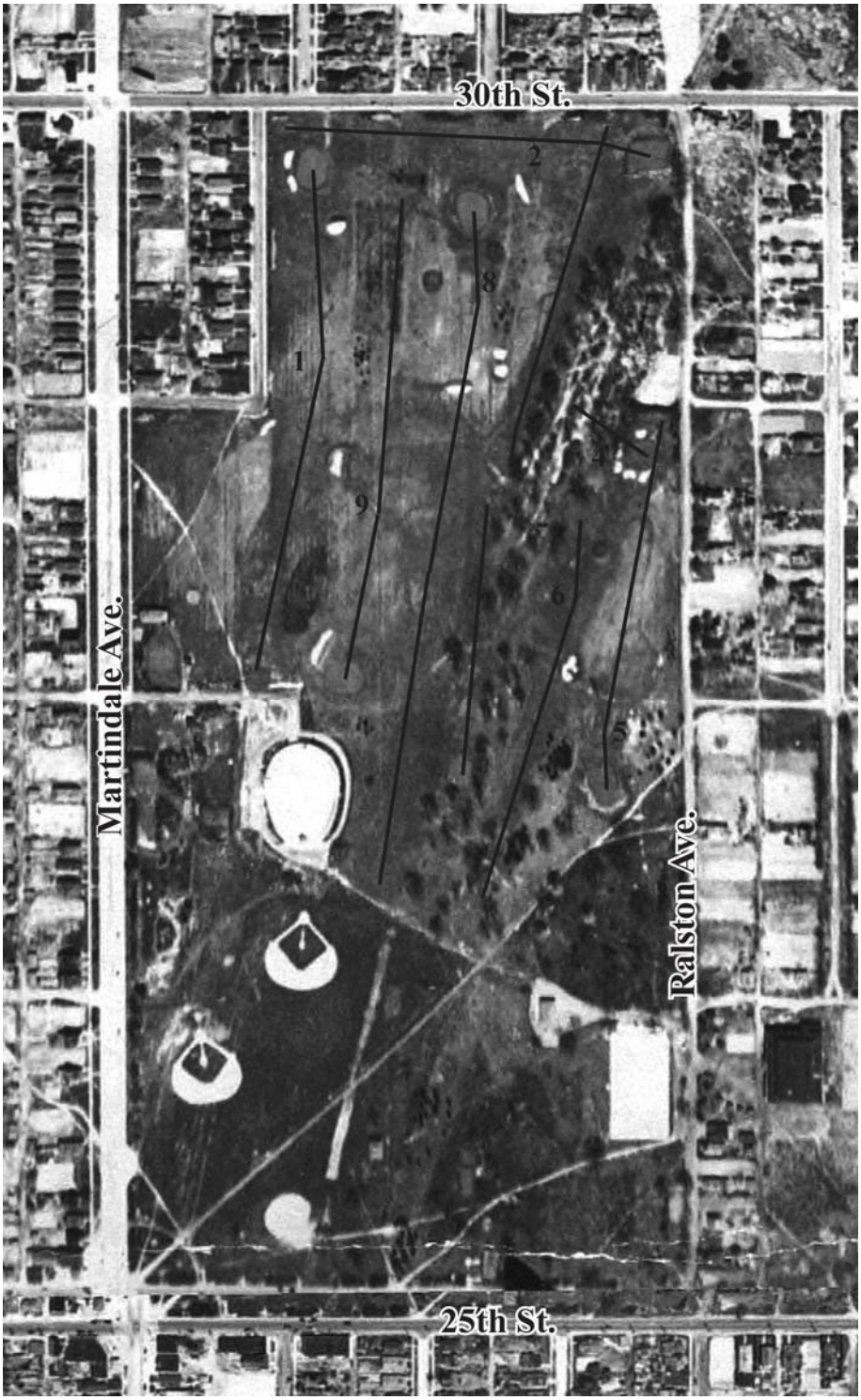


Figure 5.7: 1937 Aerial Photograph of Douglass Park from the SDAT charrette, Fall 2009

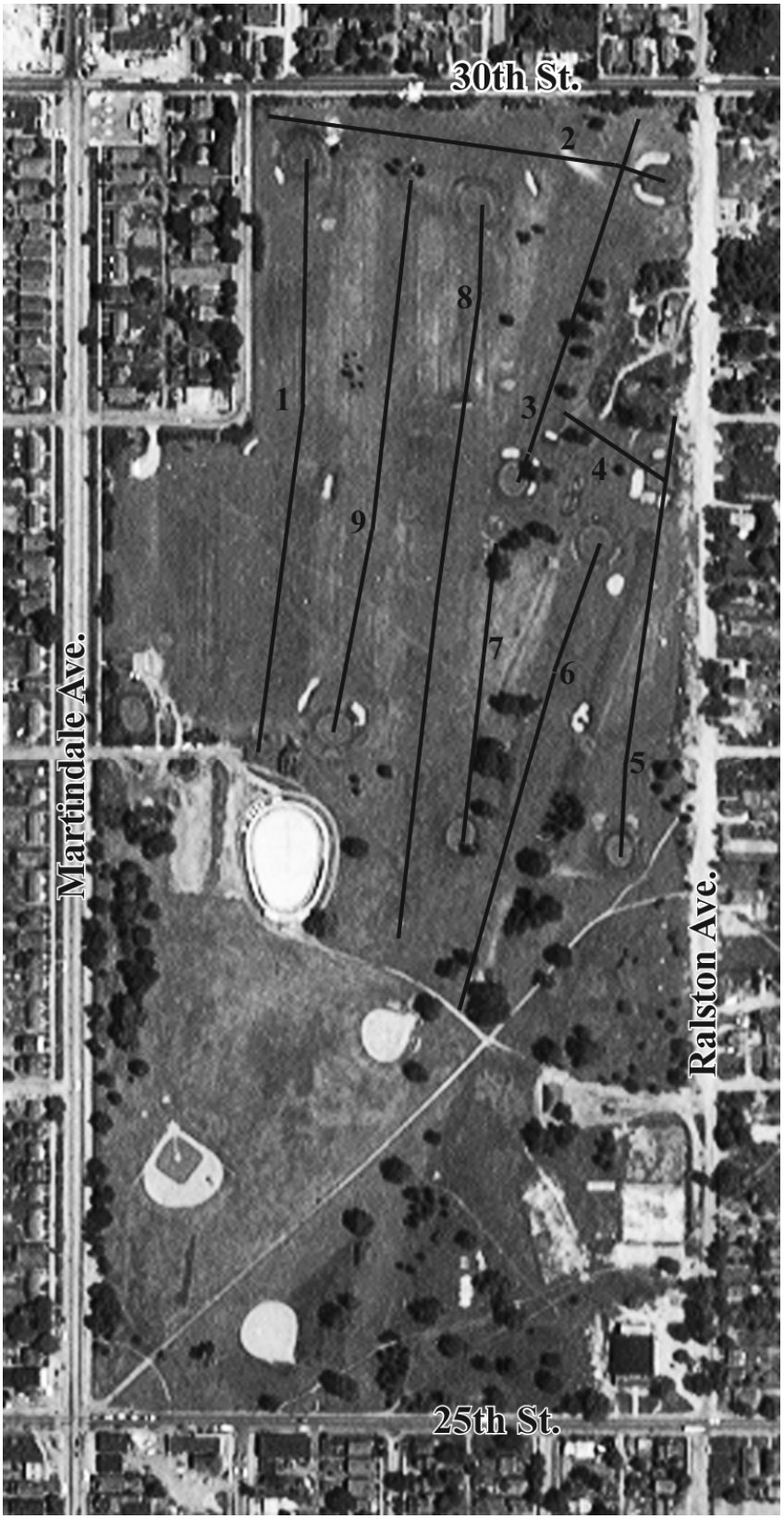


Figure 5.8: 1956 Aerial Photograph of Douglass Park, courtesy of the IUPUI Digital Collections

Figure 5.9: 2008 Aerial Photograph of Douglass Park from the SDAT charrette, Fall 2009

The most significant changes to the course have occurred on the 2nd, 4th, and 5th holes (figures 5.10, 5.11, and 5.12). The back and middle tees on the 2nd hole have shifted forward sixty-five yards, shortening the hole from a par 4 to a par 3 (figure 5.10).

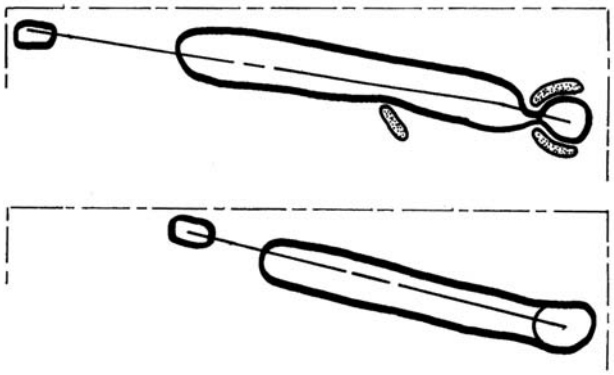


Figure 5.10: Changes in 2nd hole Top: hole in 1956, Bottom: hole today

The 5th tees were also shifted, this time to the south to prevent golf balls pulled left off the tee from going into the adjacent neighborhood. The location of the green was also moved to the south, and the contours of the old green can still be seen in the fairway about 110 yards short of the present green (figure 5.11).

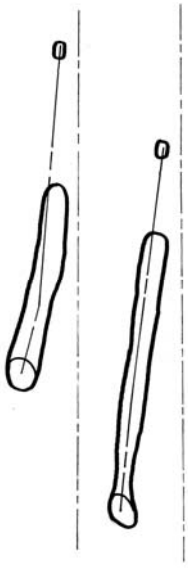


Figure 5.11: Changes in 5th hole Left: hole in 1937, Right: hole today

Of the holes on the course, the 4th has undergone the most change. Initially, the 4th hole was a very short par 3, measuring only 85 yards with a green heavily guarded by bunkers. The hole also played to the southeast. The current 4th hole is a long par 3, measuring 196 yards with a single large bunker on the left front. Both the tee and green have been moved, so that the current hole plays to the north northeast, into the area that once housed the maintenance yard. The hole was moved from its initial configuration to its present position in the late 1950s – early 1960s to alleviate flooding problems because the original green was located on top of a natural spring and had a tendency to flood.[16] Also, the tee for the 4th hole was located in a very precarious position relative to the landing area for the 3rd hole, and shifting its orientation would have made it safer for golfers playing the 4th hole (figure 5.12).

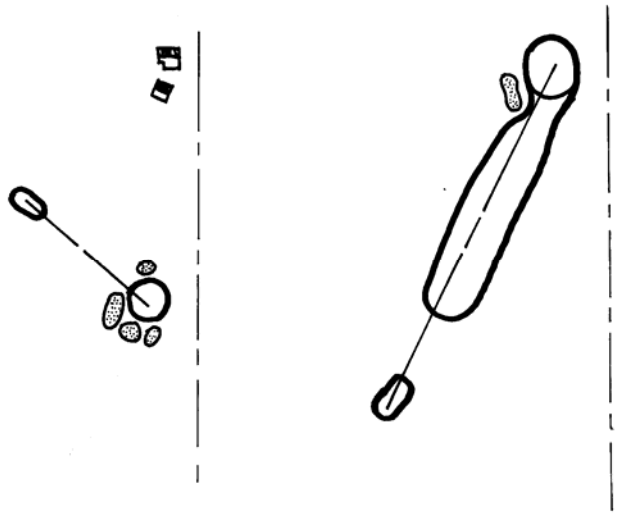


Figure 5.12: Changes in 4th hole Left: hole in 1956, Right: hole today

The only other significant difference on the course is the trees that have been planted between the fairways. Initially, owing to its history as a pasture, there were very

[16] Johnny Green, Jr., interview by author, Indianapolis, Indiana, August 18, 2009.

few trees on site and these were concentrated in two areas, the old maintenance yard – now the 4th green – and along the ridge running between the 5th and 6th holes, but for the most part the course was very open. Since then, trees have been planted between many of the holes, to visually separate them and try to provide a bit of safety.

In addition to the course, the rest of Douglass Park has also remained fairly consistent. The original swimming pool built in 1923 was replaced with a more modern pool in 1967. The ball fields on the southwest portion of the site have changed orientation numerous times, but remain in the same area. In the mid-1990s a driving range was proposed for the middle of the southern portion of the park, but it did not last long. The area is now home to a football field built with grants from the National Football League and Indianapolis Colts, and hosts the Alonzo Watford Youth Football League from July through November.[17] The southeast corner of the park has had a variety of uses through the years and currently holds a basketball court, four tennis courts, a playground, and the Douglass Family Center, a community center run by Indy Parks.

Railyard

The old Monon and Nickel Plate Railyards are currently abandoned. The Indy Parks Department owns a significant portion of the old Monon yard, from 28th down to 25th Street, while the Nickel Plate yard is a vacant lot. Both are qualified as brownfields by the city and any construction on them will have to be capped with two feet of clean fill.

[17] Cathy Marx, email communication, November 19, 2009.

The Monon Trail, a 10.5 mile greenway from 10th to 96th St. runs through old railyards, on top of the old Monon rail line. The old Nickel Plate tracks run adjacent to the Monon Trail, but are not currently in use.

Future

In November 2009, Martindale-Brightwood and the adjoining King Park Neighborhood were the focus of a three day charrette put on by the American Institute of Architects' Sustainable Design Team (SDAT). This charrette explored ways to revitalize the neighborhood and make it a sustainable example for the rest of the city. The SDAT team also looked at potential locations for a commuter rail stop along the abandoned Nickel Plate line, as part of a line that would connect downtown Indianapolis to Fishers.

The Green Line, the tentative name for the proposed commuter rail line, has already identified stops on either side of the Martindale-Brightwood neighborhood, to the north at the State Fairgrounds at 38th Street and to the south at 10th Street before the I-65 and I-70 interchange. At the charrette, three potential railstops were identified along the corridor between 10th and 38th; these were at the intersection of the Nickel Plate line and 16th, 22nd, and 30th Streets (figure 5.13). While the city is unsure as to whether there will be two or three stops in this zone, the general consensus at the charrette was that there will be a stop at 30th St., since this is a major east-west route through Indianapolis. This means the northern portion of the railyard site will likely become a commuter railstop.

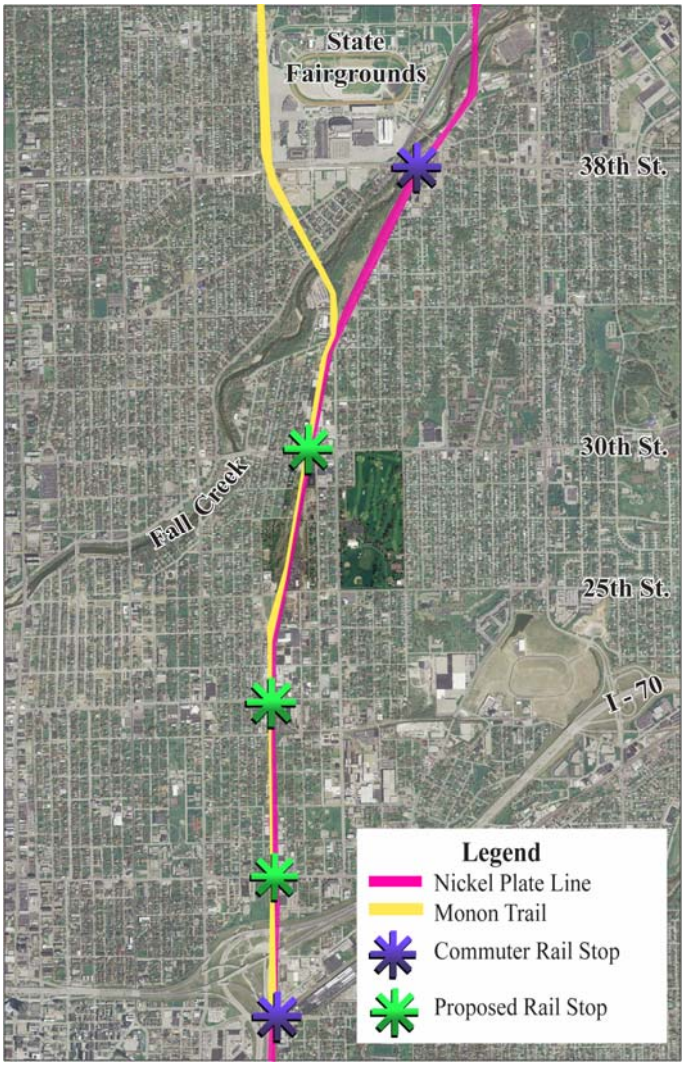


Figure 5.13: Proposed stops along commuter rail line

At the charrette, I also spoke with André Denman, Principal Planner for Indy Parks and Recreation, about Douglass Park and the Monon Railyard site. From him I learned that the Parks Department is planning to move the Douglass Family Center from its current location in the southeast corner of the park to the area currently occupied by the shared parking lot for the golf course and swimming pool. No time table was given for this proposed relocation, but moving the community center to this location would give

the park a much stronger connection to the existing Monon Trail and any future development associated with the railstop.

After the charrette concluded, the ideas and plans that had been put forth were complied into a plan for a Smart Growth Renewal District of Indianapolis and submitted to the Environmental Protection Agency. In February 2010, the Smart Growth Renewal District of Indianapolis was selected as one of five nationwide pilot programs sponsored by the newly created Office of Sustainable Communities, a collaboration between the Environmental Protection Agency, the Department of Housing and Urban Development, and the Federal Department of Transportation.[18] These five pilot programs will have access to $300 million dollars in federal funds, which will go towards cleaning brownfields, addressing stormwater issues, increasing mobility options, integrating alternative and green building techniques, and providing the area with much needed economic opportunity.

[18] Dave Ryan, "EPA Announces New Support for Sustainable Communities: New office, pilot programs to help communities minimize their environmental impact and increase economic opportunity," EPA.gov, February 5, 2010.

Design Development

There are many things to consideration when designing a golf facility. This chapter will synthesize the information obtained through research and case studies into a set of goals and objectives for the project design. It will also provide an analysis of the existing Douglass Park Golf Course and Monon Railyard, along with some initial design concepts.

Lessons from Research

After researching the game of golf and its benefits, the history of the site, and conducting a series of interviews and case studies, I condensed the information into several broad themes. These themes, when combined with the site analysis, will form the basis for the goals and objectives for the project. These findings are as follows:

1) Strategically designed courses can accommodate all levels of play, maintain their popularity, and engage the whole community.

2) A course that allows for both success and failure and that gives a player the ability to demonstrate their skill but also confront their weakness will remain a challenge.
3) By using non-traditional facilities such as alternative courses, putting courses, and practice ranges, golf can become more accessible.
4) Golf requires problem solving and critical thinking skills, which become more highly developed as the player's skill level increases.
5) Golf provides a range of physical and mental benefits for participants from youth through old age.
6) Douglass Park and Douglass Park Golf Course have been a touchstone of the African-American community in Indianapolis for over 80 years.
7) Although the community surrounding Douglass Park has been in decline since the mid 1960s, its recent designation as a national pilot program for the Office of Sustainability and the proposed location of a commuter railstop at 30th Street should provide an influx of capital and opportunity to the area.

Site Inventory and Analysis

As previously noted, the area around the site is economically depressed and plagued by environmental contamination, vacant lots, abandoned homes, high crime, and high unemployment, but there are some positives, including many strong religious institutions and well performing schools. The existing site is much the same, a mixture of good and bad. Douglass Park Golf Course is well used, with a steady customer base,

composed mainly of retirees in the neighborhood.[1] It also possesses some interesting architectural features not usually seen in modern courses, and the rest of the park offers a wide variety of recreational activities, including baseball, softball, football, tennis, basketball, and swimming.

The park is also bordered by a relatively stable collection of houses to the east; a collection of modest ranch style houses built as part of the Flanner House Homes project in the 1960s.[2] The housing stock west of the course and surrounding the railyard is in considerably worse condition. As previously shown (figure 5.5) there are many vacant lots surrounding the railyard and of the lots that contain houses, quite a few are abandoned and boarded-up. The houses encircling the railyard are also a different architectural style than those to the east. They are mainly composed of multistory shotgun houses built in the first decades of the 20th century.[3] In addition, I observed many discarded liquor bottles – some broken, some not – in and around the railyard site and there is a junkyard in the southeast corner. The junkyard is an eyesore both inside and out. The fence surrounding it has been repeatedly tagged with graffiti and a glimpse inside revealed stacks of rusted out cars with plants growing out of them.

The railyard site does offer some positives as well. The first is a view of the Indianapolis skyline, from near 28th Street looking south. It was unexpected and has the potential to be used as a landmark. The second, and most important, is the Monon Trail. I saw bikers, runners, and families with strollers all using the trail as I was exploring the site. But while the Monon is one of the greatest assets of the site, it is almost completely

[1] See figure C.3 in Appendix C for number of rounds played yearly at Douglass Park
[2] Martindale Brightwood Timeline, 5.
[3] See Figures B.1, B.2, and B.3 in Appendix B

cut off from Douglass Park and the neighborhood to the east. Twentieth-eight Street runs from the entrance of Douglass Park towards the center of the railyard before it stops half a block from the Monon Trail. It then jumps over the rail lines before starting again on the opposite side. So to walk between the two sites it is necessary to follow a narrow path through overgrowth and debris – including an old couch, grocery carts, and piles of discarded bottles – cutting across the railroad tracks and then through a narrow opening in the fence before it is possible to reach the Monon Trail from Douglass Park, certainly not an inviting experience. So while Douglass Park and the Monon are great civic and recreational assets separated by only a couple of blocks, there is absolutely no connection between them.

The site inventory and analysis are shown graphically on the next two fold-outs (figures 6.1 and 6.2, respectively) as well as a diagram of the current recreational uses at Douglass Park (figure 6.3). A hole-by-hole description of the existing Douglass Park Golf Course follows in the next section.

Figure 6.1: Site Inventory

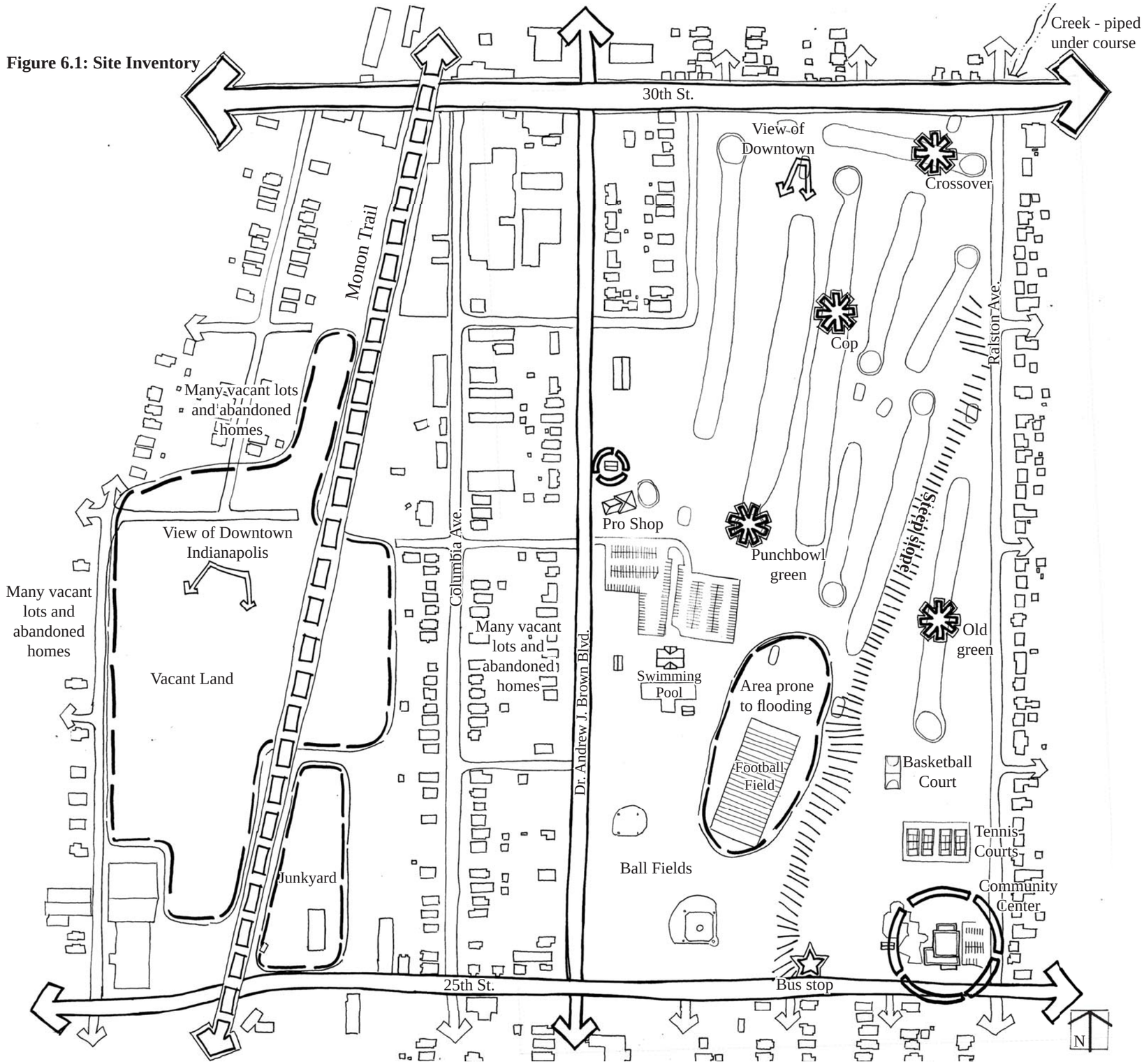


Figure 6.2: Site Analysis

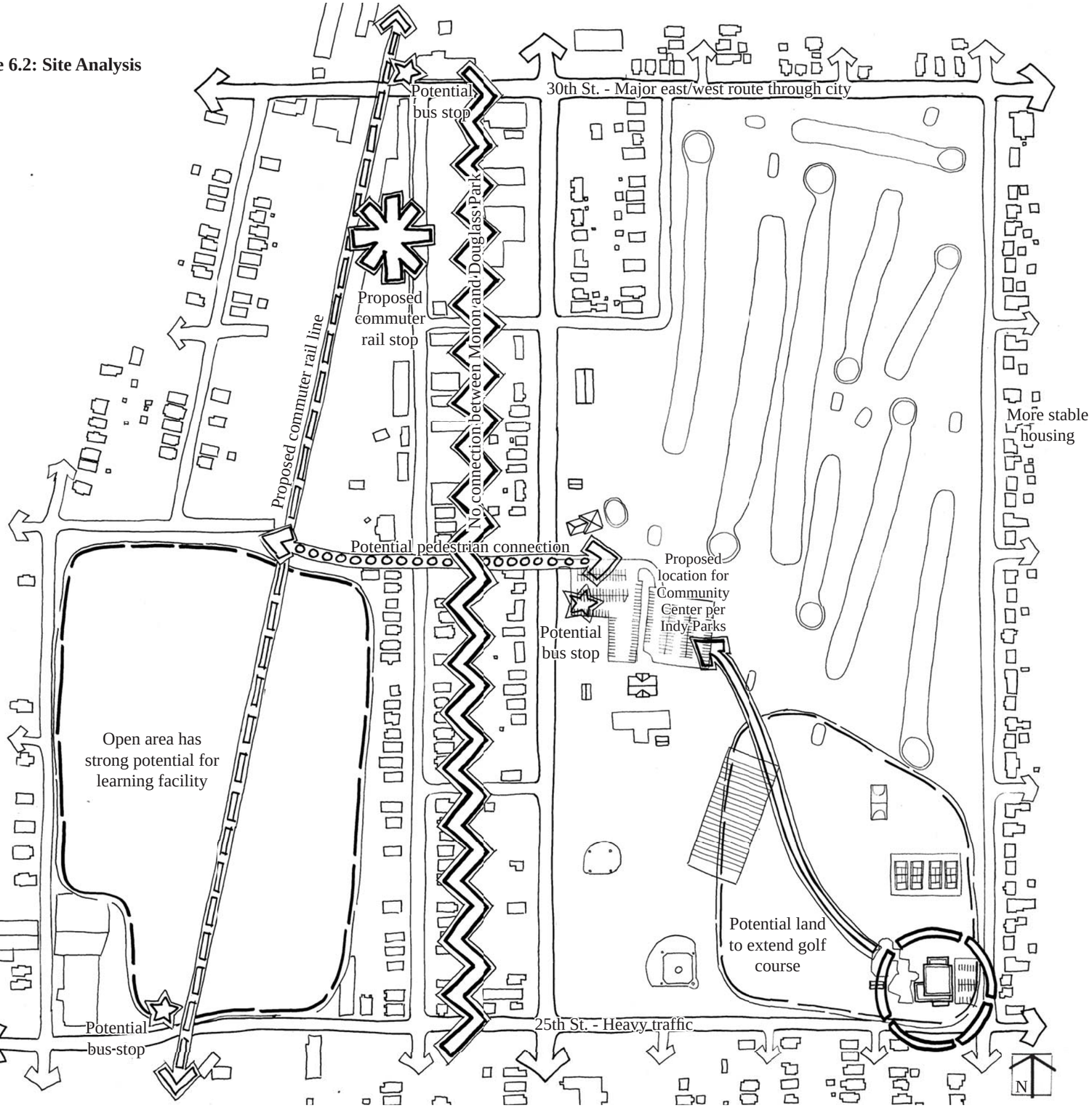
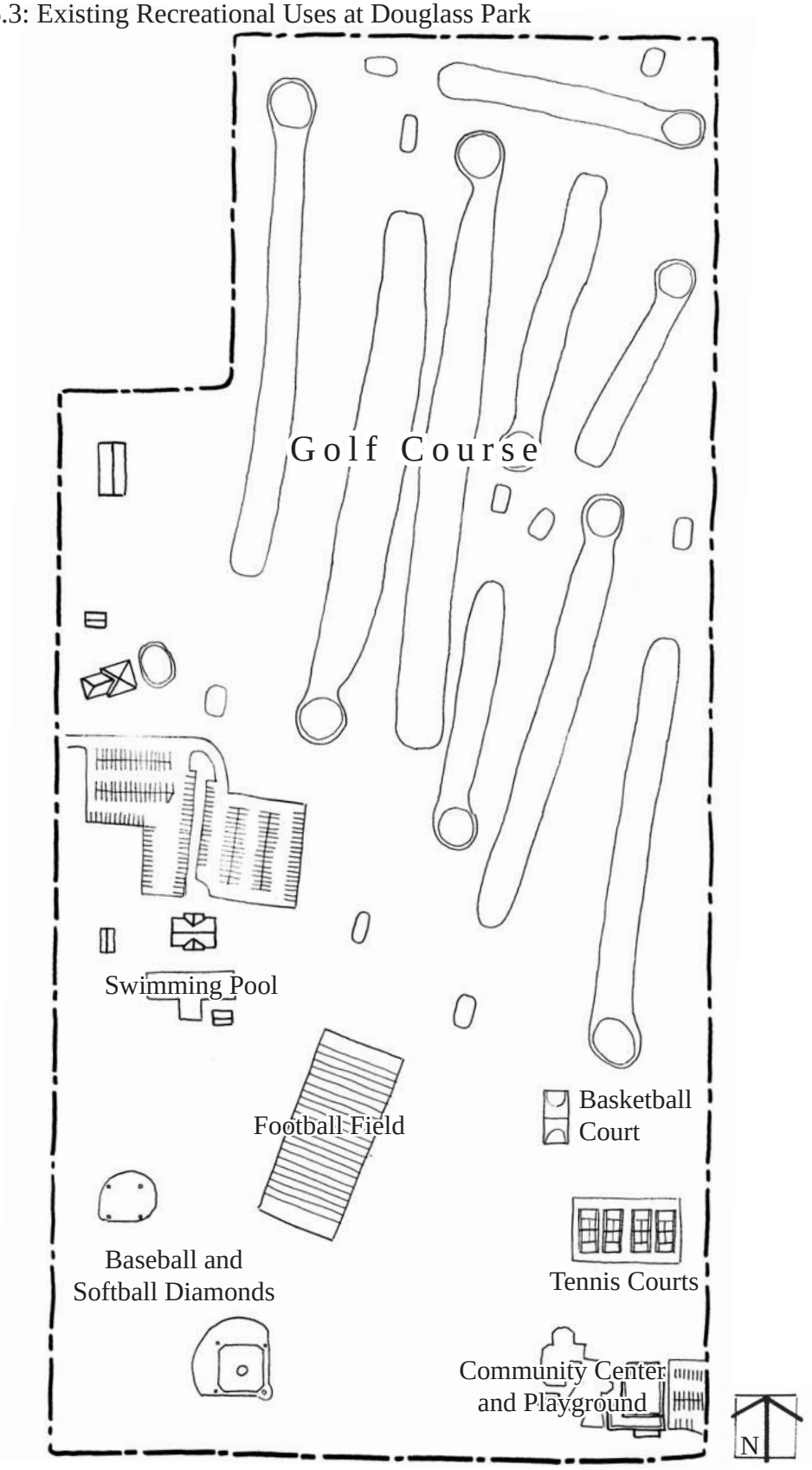


Figure 6.3: Existing Recreational Uses at Douglass Park



Douglass Park: Hole-by-hole

The current routing of Douglass Park Golf Course dates from the mid-1920s and so do many of the architectural features it contains. While these features and their styles were common eighty years ago, it is rare to find some of them on modern courses.

Douglass Park, when initially built, would be classified as a penal design. The holes were straightforward, requiring little strategy to play and bunkers were placed to punish golfers who went off line. This can be seen especially in the two bunkers flanking the landing area of the 1st hole in the 1937 aerial (figure 5.7). Perhaps the most unusual penal feature is found on the 8th hole. There, approximately 135 yards from the green, a raised cop cuts across most of the fairway. This feature was originally designed to impact poorly hit golf balls that were scooting along the ground by slowing them down, deflecting them, or providing an awkward stance for the player's next shot. Initially there was also a bunker in front of the cop, which would have had an even greater impact on those mishit golf balls.

Another uncommon feature at Douglass Park Golf Course is the crossover between holes 2 and 3 (figure 6.4). Crossing holes, quite simply, have centerlines that cross one another. They were initially found on links courses where high visibility and low frequency of play meant the unusual set-up did not interfere with play. As golf became more popular, designers shied away from them because of safety concerns and their tendency to slow down play, as a result, crossing holes are rarely seen on modern courses.[4] Crossing holes, where they do exist, usually intersect near the tee of one or both of the holes. This is because the tee box serves as a control point, allowing the

[4] Richardson, 262.

designers know from where the players will be hitting. The crossing holes at Douglass Park follow this rule with the crossover located by the 2nd green and the 3rd tee.

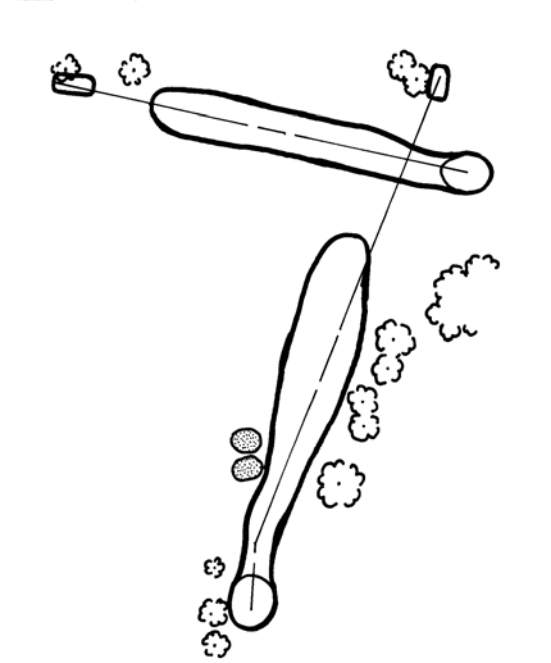


Figure 6.4: Holes 2 and 3 at Douglass Park Golf Course

The greens at Douglass Park Golf Course also recall a different age of design. The 9th green is the type of green known as a punchbowl because it is located in a slight topographic bowl. In the early days of golf, before irrigation, punchbowl greens were common because the water collecting properties of these areas helped maintain healthy stands of grass on which to putt.[5] The other eight greens at Douglass Park are push-up, or native soil, greens. These greens were built and shaped using existing soil that was pushed up from the surrounding area. This method of construction resulted in greens that are slightly domed, also known as turtle-backed, and quickly run off the edges. This contrasts with most modern greens, which are built to USGA specifications. This process

[5] Doak, 234.

involves coring out the surface of the green, then adding a four inch layer of pea gravel and twelve inch layer of sand to create a perched water table. In this method of construction greens are not built up, but instead dug in, and because of this they are usually set into slopes or only slightly elevated and have a smoother transition from the green to the surrounding topography.

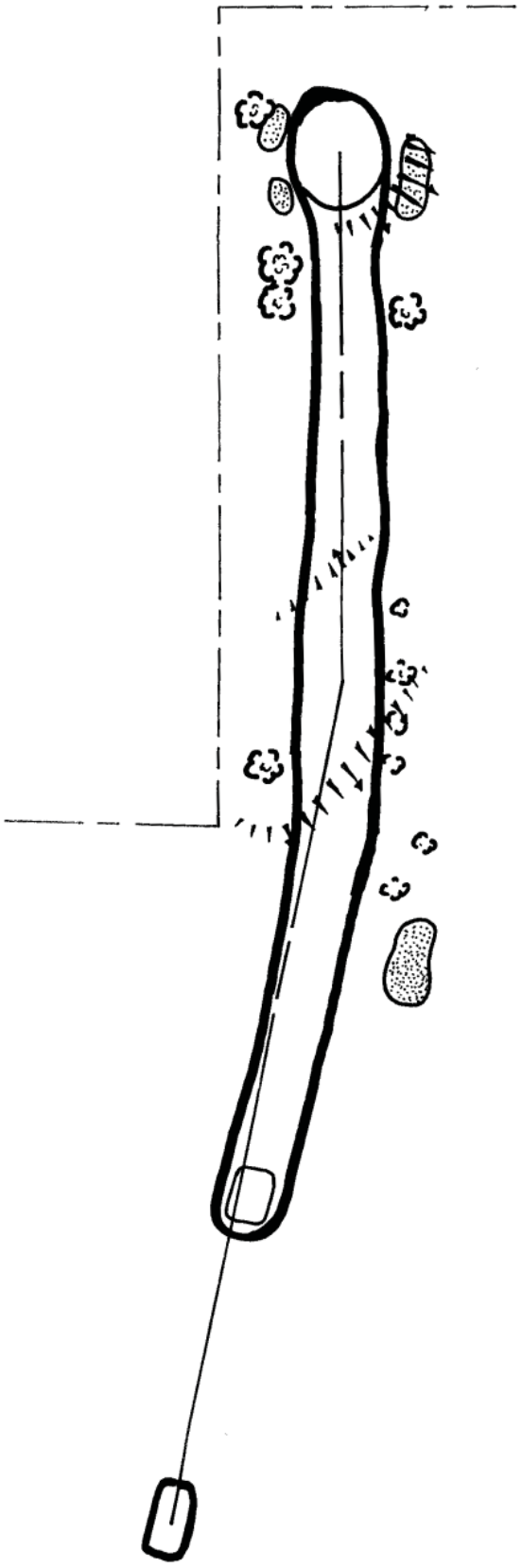
Another major difference between modern golf course routing and Douglass Park is the distance between the centerlines of the golf holes. On modern courses, hole centerlines are generally 250 feet apart, to provide a safety buffer and prevent balls on one hole from interfering with play on another. As equipment has become more advanced, centerlines have moved farther apart because golfers are now able to hit balls farther and, consequently, farther off line. Older courses then generally have centerlines more closely spaced, but even in relation to other courses from the same era the centerlines at Douglass Park are tight ranging from 160 to 175 feet apart. Also, with golf balls traveling longer distances, many of the landing areas at Douglass overlap, so most of the current trees on the course were likely planted to separate holes and prevent golf balls from going between fairways.

The following hole-by-hole descriptions were compiled from the initial site visits and used to evaluate the opportunities and constraints of the current layout.

Figure 6.5: Existing Golf Course at Douglass Park

Hole	Par	Back	Middle	Front
1	4	382	358	338
2	3	195	189	130
3	4	265	250	193
4	3	196	190	163
5	4	335	325	250
6	4	323	279	262
7	3	211	204	189
8	5	496	476	365
9	4	374	359	304
Totals	**34**	**2777**	**2630**	**2194**

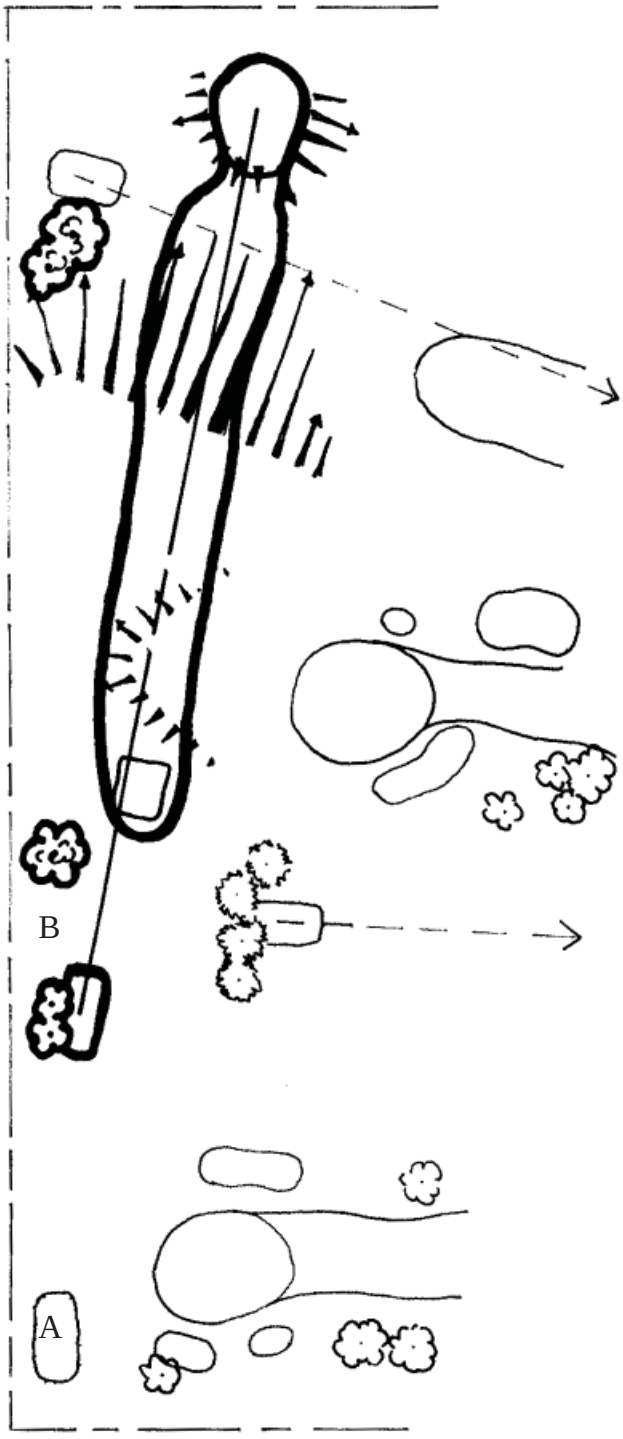
Figure 6.6: Hole 1, existing



Hole 1 - Par 4
382 yards
358 yards
338 yards

- Wide open tee shot
- Slight uphill at landing area, then slight down to green
- Tight out of bounds on left, only about 20 yards from edge of fairway
- Bunkers are fairly flat with little visual impact
- Large flat green, falls off to back

Figure 6.7: Hole 2, existing

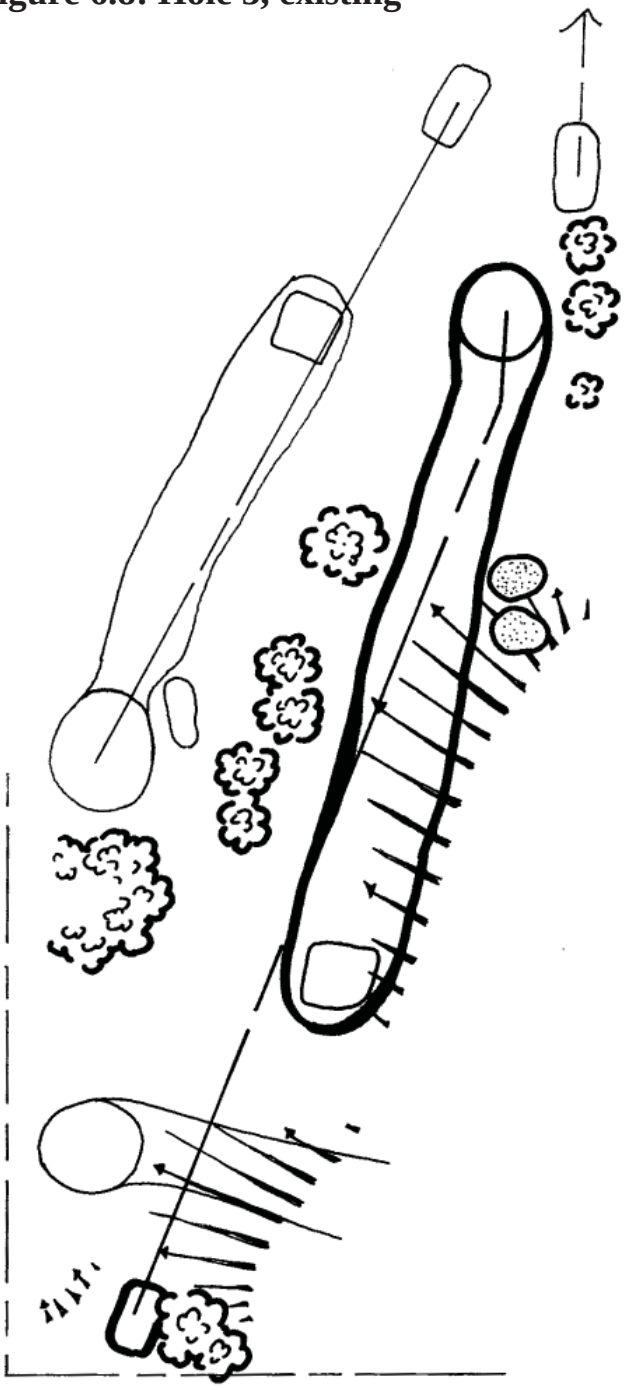


Hole 2 - Par 3
195 yards
180 yards
130 yards

- Only flag visible from tee
- Green visible from forward tee
- Nice roll ~80 yards in front of green
- Dip before green
- No bunkers
- Green slopes from left to right

A - Old tee box
B - Two large trees beginning to infringe on tee box/ball flight from left

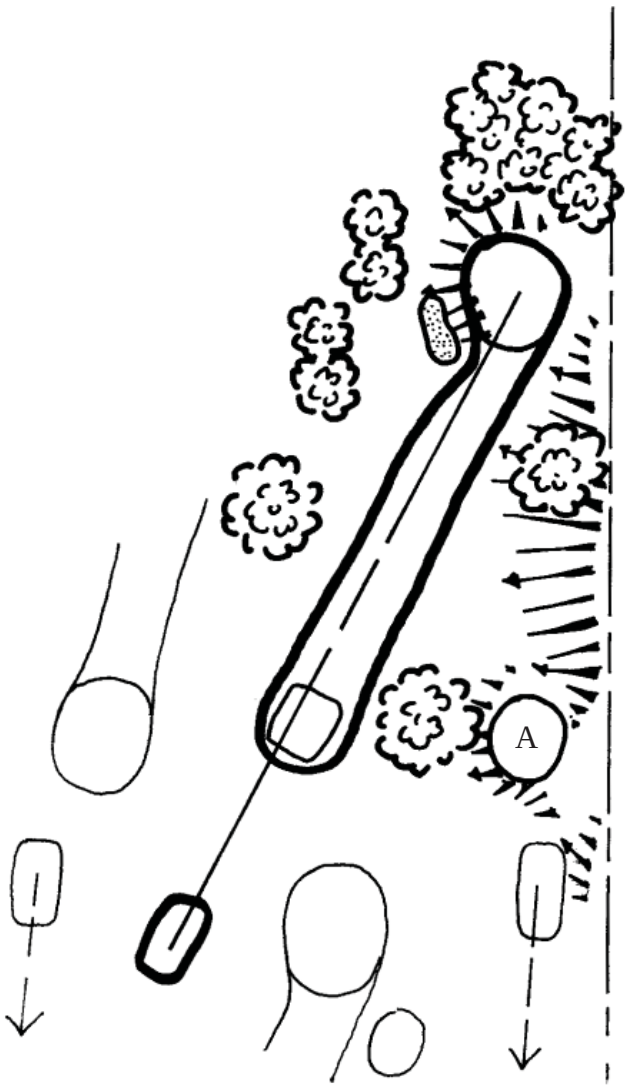
Figure 6.8: Hole 3, existing



Hole 3 - Par 4
265 yards
250 yards
193 yards

- Cross over on tee shot along swale in front of the green for the 2nd hole
- Balls pulled from 2nd hole towards 3rd tee a larger safety concern then balls hit from 3rd tee
- Trees along left of fairway guarding 4th green
- Trees block left edge of green/ fairway
- Nice small ridge on right side from ~150 - 90 yards out
- Two bunkers after ridge, barely visible
    - Not visible or in play on 3rd or 8th hole
- Green is slightly crowded, slants right to left

Figure 6.9: Hole 4, existing



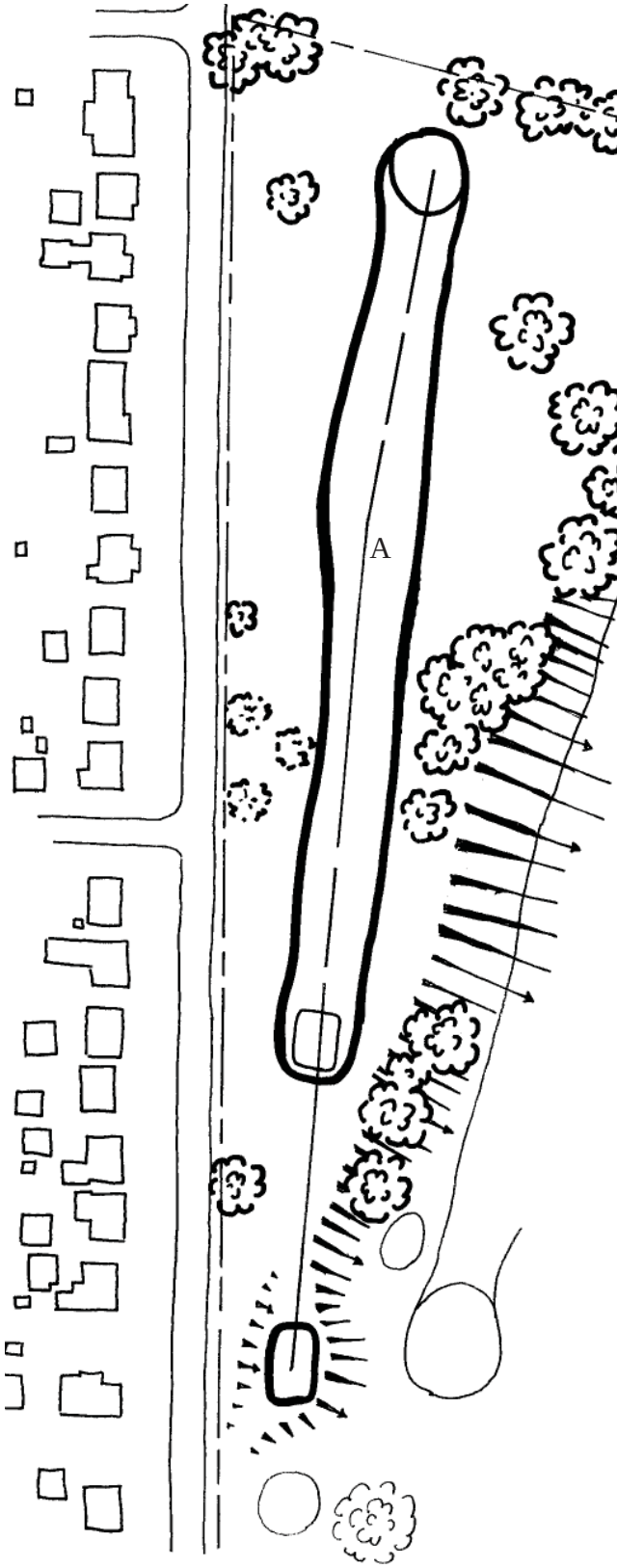
Hole 4 - Par 3
196 yards
190 yards
163 yards

- Treed backdrop for green, which is change from first three holes
- Large bunker front left, but there is a large gap between the edge of the bunker and the edge of the green making it farther out of play than expected
    - Bunker is difficult to see, with little visual impact
- Slightly (~3 ft) elevated green, set at small angle to left, edges roll off

A - Original green to right of huge swamp oak, not entirely sure where original tee was located

- Original green is small, practice green size, with slight mound in the middle, but set into ridge

Figure 6.10: Hole 5, existing

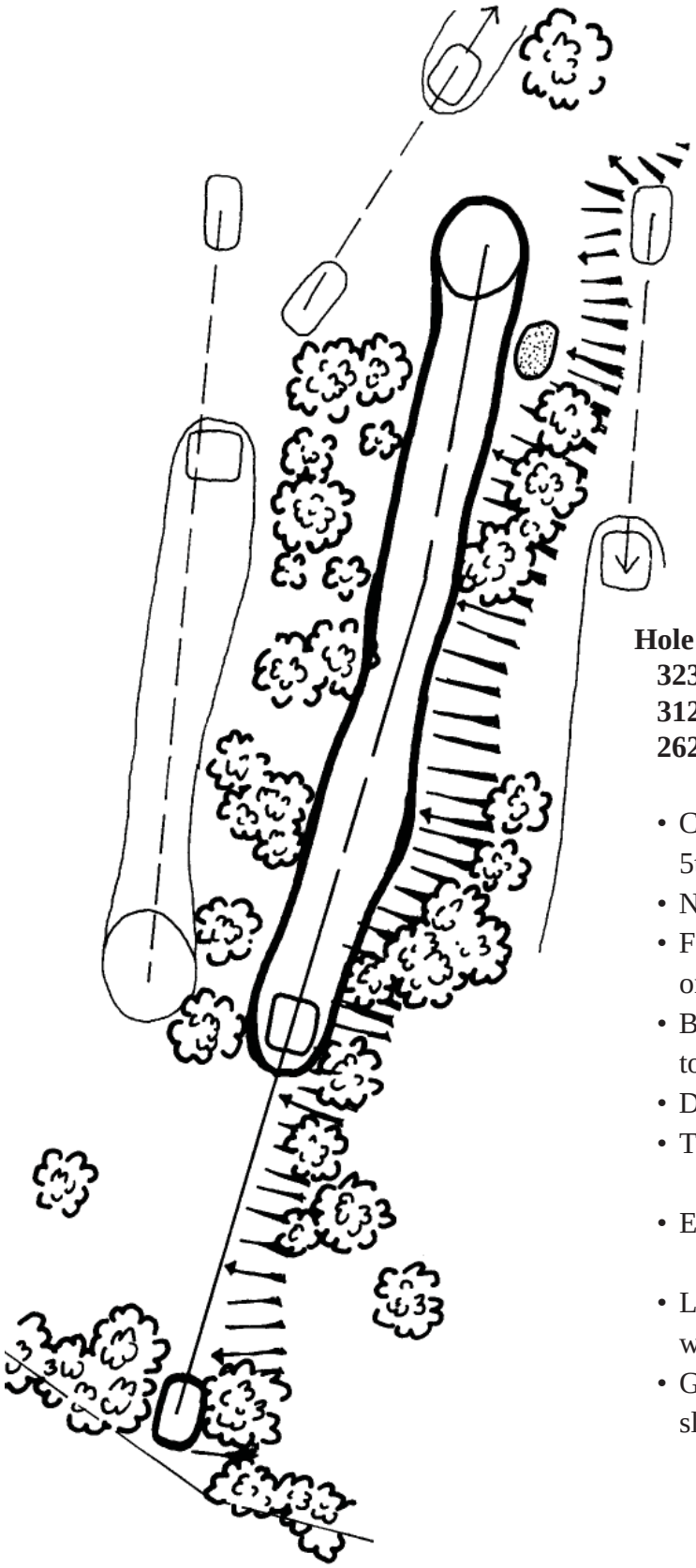


Hole 5 - Par 4
335 yards
325 yards
250 yards

- Slightly blind landing area
- Hole plays on top of ridge and 6th hole is below
- 6th green very close to tee box, stand of tulip trees and bunker provide visual protection
- Trees (pines left, river birch right) pinch fairway in at 150 yards from green
- Landing area overlaps with landing area on 6th hole
- No bunkers
- Tree behind green on right has potential to stand out, but lots of scrub growth behind/beside it
- Green slops back left to front right, only slightly roll off

A - Contours of old green still visible in fairway 110 yards from current green

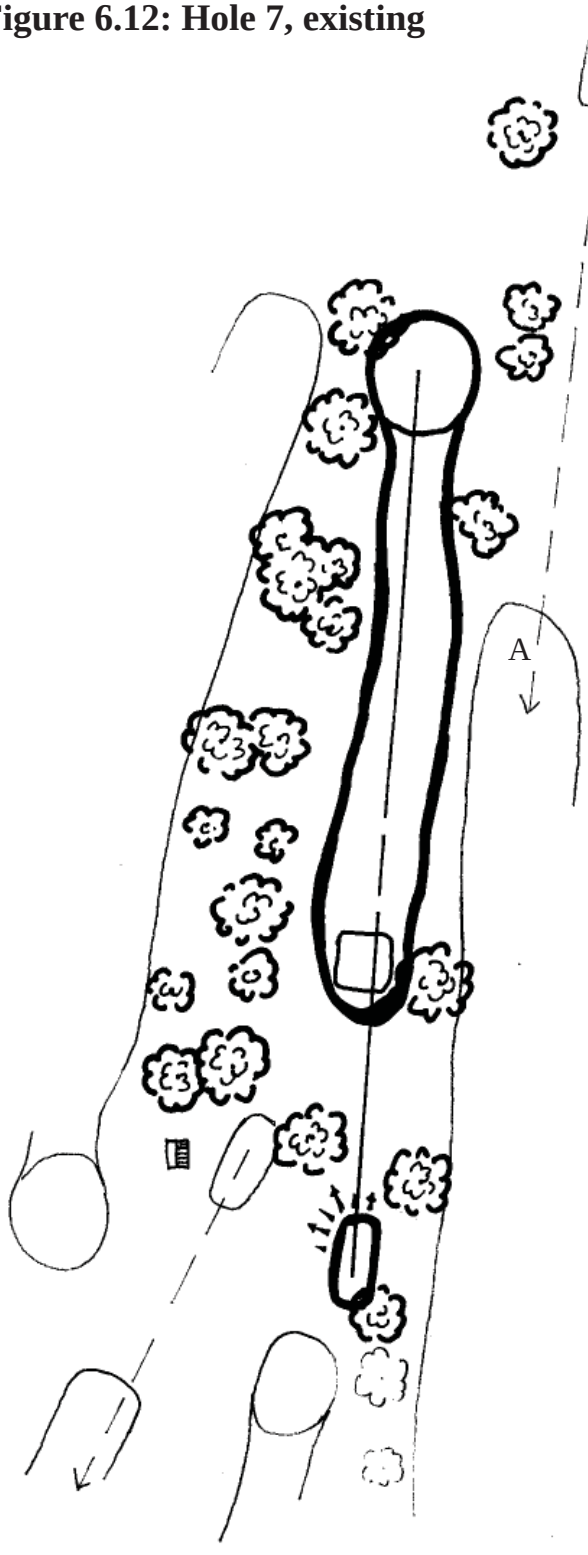
Figure 6.11: Hole 6, existing



Hole 6 - Par 4
323 yards
312 yards
262 yards

- Comparatively long walk from 5th green to 6th tee
- Nice large ash tree by tee
- Feels narrow on tee, especially on left
- Both sides are tree lined from tee to 150 yards short of green
- Dead flat
- Tight again in landing area
  - Trying to force iron tee shot?
- Existing bunker short right
  - Almost out of play?
- Large tree behind green plays with depth perception
- Green has slight back to front slope, roll off edges

Figure 6.12: Hole 7, existing



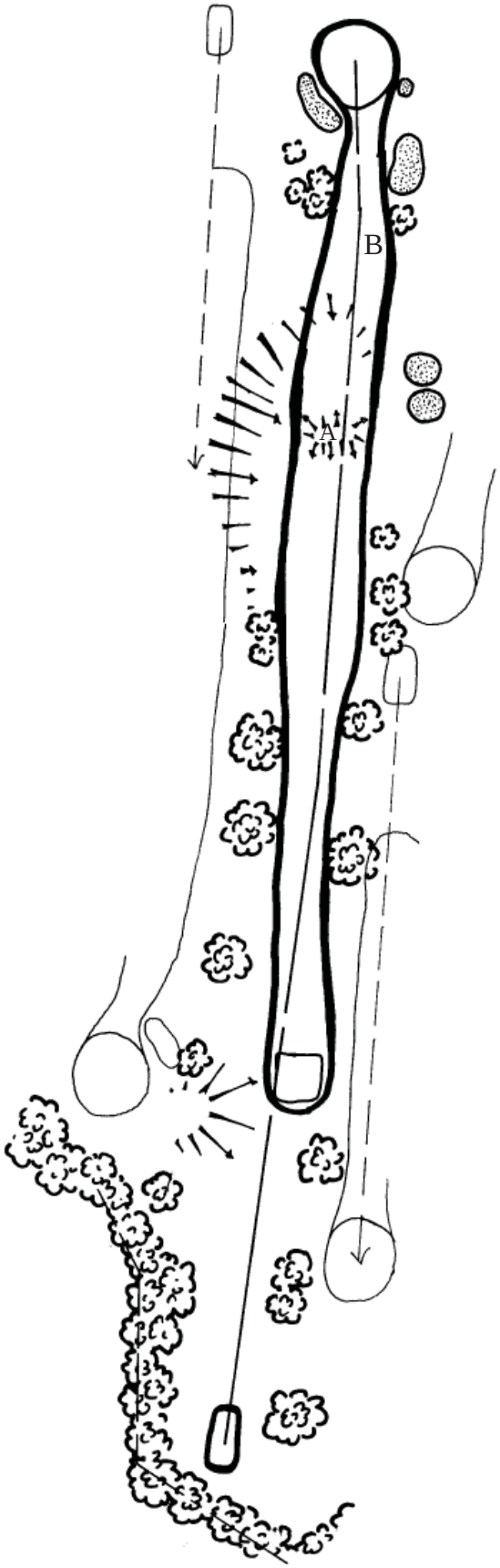
Hole 7 - Par 3
211 yards
200 yards
189 yards

- Good trees to right of tees, one on left is struggling
- Left seems well guarded by trees from the tee
- Bail out is definitely to right of green
- Green slightly crowned with front to back tilt

A - Front tees for 8th hole in bail out area from tee

- 40 yd short and just right of fairway

Figure 6.13: Hole 8, existing

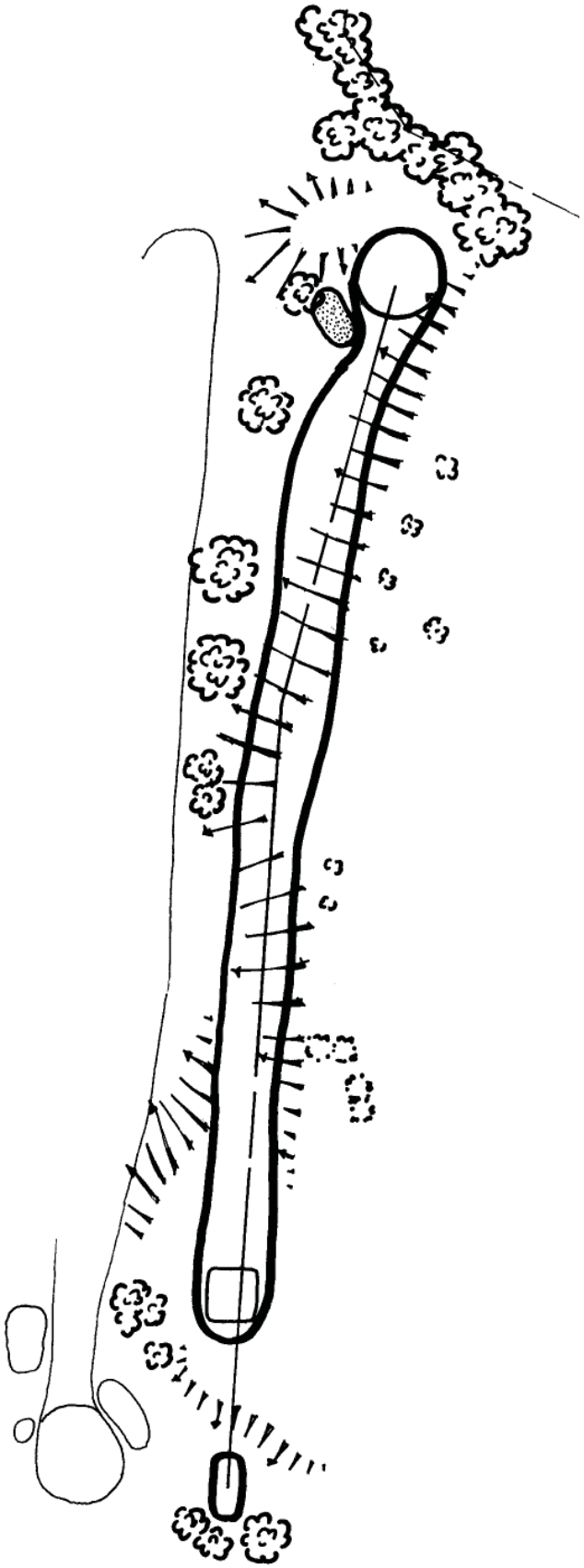


Hole 8 - Par 5
496 yards
476 yards
365 yards

- Straight forward
- 9th green to left, even with front tees
- Evenly spaced line of trees down left fairway edge
    - Start to hang over fairway about 185 from tee
- Opens up 200 yards from green
- Bunkers from 3rd hole could come into play, but are difficult to see
- Large waste bunker short and right of green
- Bunker cut into right edge of green seems out of place, needs to be bigger or have additional bunkers to fit scale of others
- Nice green, slightly elevated
- Good front left bunker

A - Cop at 135 out
B - Green set slightly to left behind trees and bunker, best to approach from right

Figure 6.14: Hole 9, existing



Hole 9 -Par 4
374 yards
359 yards
304 yards

- Small ridge in front of tee
- Can see city skyline from back tee
- Three pines on right seem odd, they would be no problem to hit over, but visually push shots left towards sycamores
- Cool cross ridge 70 yards in front of forward tees
- Small ridge cuts across fairway at 150 yards from green
- Green is slight punchbowl
- Ridge to right of green blocks the view of the green from the right edge of the fairway
    - Potential to bring it further around?
- Treed background

Missing Shots

After taking an inventory of the existing Douglass Park Golf Course, I analyzed the data to determine what golf elements were missing. One of the most noticeable things on the course was the limited impact of the bunkers. Some of them were well outside the line of play, such as the pair between the 3rd and 8th holes and the bunker short of the 6th green, others had a much smaller effect than would be expected due to their limited visibility or being blocked by trees, such as the bunkers by the 4th and 1st greens respectively. In addition, after looking at the old aerial photographs, some bunkers that would have had an impact on play, such as the bunkers around the 3rd green (seen in the 1956 aerial, figure 5.8), the 4th green (seen in the 1937 and 1956 aerials, figures 5.7 and 5.8), and in front of the cop in the 8th fairway (seen in the 1937 aerial, figure 5.7) have been lost over the years. These are not the only bunkers that have been lost. The course today has only twelve bunkers, fewer than it did in 1937. A course does not need a multitude of bunkers to be challenging, but if a course has only a limited number of bunkers, these need to be placed carefully, so that they have an impact on the round.

While the bunkers are exerting limited influence over the course, another obstacle – trees – are having a much larger effect than would have been anticipated. Trees are one of the most difficult obstacles for a player on a golf course because of their three dimensional nature. They also have a tendency to grow, which means small trees planted near the fairway in time can grow to impact the line of play. This has happened in several places at Douglass Park. A large tree to the left of the 2nd tee blocks a portion of the green and the trees between the 6th and 7th holes impact play on both holes. On the 6th hole (figure 6.11) they hang over the left half of the fairway, narrowing the landing area,

while on the 7th (figure 6.12) they again push in from the left, blocking that portion of the fairway and steering the golfer towards the open area to the right where the forward tees for the 8th hole are located. This is not to say trees cannot be used as a good obstacle on a golf course, but great care and foresight needs to go into their placement.

The existing layout for Douglass Park also does not require much strategic play or the ability to place the ball. Only one hole, the 8th, requires the player to correctly position his ball for a better shot to the green, in this case an approach from the right side of the fairway. This contrasts with the rest of the holes which are fairly open and give no discernable advantage to a golfer who can place the ball. This wide open nature allows golfers to swing away, without having to plot their line of play to the hole. In addition, while there is not much topography at Douglass Park, the existing holes for the most part, do not take advantage of it. The 3rd and 9th holes have small ridges cutting across their fairways, but these are located outside of the landing area for most shots and as a result have little impact on play. One of the few places topography does come into play is near the 9th green. A small ridge on the right obscures the view of the green from the right edge of the fairway, but from the left side this ridge could be used to help steer a ball onto the green. Unfortunately this is about the only place a clever player can use the topography of a hole to his advantage at Douglass Park.

Finally, when looking at the shots a typical golfer would be expected to play in a round there were gaps at Douglass Park Golf Course. This means there are shots a golfer should be able to hit are not needed to play at Douglass. While courses cannot provide for all types of golf shots, a good course should allow a player to practice a wide variety of shots. Douglass Park is a relatively short course and contains many holes that could be

played with only a driver and a wedge, requiring limited skill with the clubs between them, especially irons.[6] Off the tee Douglass Park requires a driver, fairway wood, or long iron from all players and many beginners would likely only use a driver. This is because the course lacks any medium or short par 3s, from which a shorter iron might be used. Originally Douglass Park had both a short par 3 – the 4th – and a long par 3 – the 7th – but with the reorientation of the 4th hole and shortening of the 2nd hole, the course now has three long par 3s. After teeing off there is the opposite problem, instead of a multitude of long shots, from the fairway Douglass Park has an overabundance of wedge and pitch shots. While this does give players ample opportunity to show off their talents from short range, there is no place where they are required to display their skill from the fairway with mid to long irons. Douglass Park will need more variety, both from the tee and fairway, if it is going to provide a challenge for golfers of all levels.

Goals and Objectives

After conducting site analysis and research, I have come up with the following list of goals and objectives to guide the design of my creative project.

GOAL: Redesign Douglass Park Golf Course to offer more strategic decisions and a wider variety of shots.

- The course should be beginner friendly but not cater to a specific level of player.
- The course should allow players to demonstrate their skills, but also confront their weaknesses

[6] Refer to figure C.4 in Appendix C for a breakdown of expected shots at Douglass Park.

- Preserve the architectural distinctiveness of the existing course and ensure any additions fit in with that style

GOAL: Design a learning facility that allows players to learn and practice all facets of the game

- Provide setting that can be easily maneuvered and changed
- Provide areas and activities that make the game more accessible, both to golfers and to non-golfers

GOAL: Restore and draw attention to the cultural and design history of Douglass Park and the surrounding area

GOAL: Provide a strong connection between Douglass Park, the Learning Center, and the Monon Trail

- Create a physical, visual, and design connection between the two golfing facilities
- Create a relationship between the Monon Trail and Douglass Park

Initial Concepts

When looking at initial concepts for Douglass Park Golf Course and the learning facility I wanted the facilities to be able to operate independently but feel similar. There also needed to be some functional overlap, so there were multiple places to practice a certain skill, but at the same time each needed to feel distinct.

Douglass Park

Douglass Park Golf Course is shoe-horned into the existing site, making adjustments to the current course difficult. Trying to change the layout of one hole shifts the problem to a different part of the course. Fixing the new problem shifts the trouble area again, a process that continues until it finally circles back to creating a problem in the initial area. This left only a few options for the redesign: change the number of holes on the course, change the distance of the holes, or enlarge the course footprint.

The first option, reducing the number of holes on the course, fit nicely with the idea of an alternative course, but with the learning center nearby – which would likely have an alternative course – there might not be enough distinction between the two. This option could allow for the preservation of some of the existing architectural features, but would also likely just involve the elimination of some existing holes instead of an entirely new layout. Also, there is an existing customer base that might not be willing to play 6 or 7 holes in the exact place they used to play a full 9. Finally, when the course was founded, the African-American community had to fight to get a "real" golf course; it seems a shame to take that away from them after 80 years.

The second option would be to shorten the length of the holes, turning Douglass Park into a par 3 or executive course. With a par of only 34, Douglass Park is probably already considered an executive course by some, although this option would shorten the total yardage considerably. To preserve the existing architectural features, this option would cut out some existing holes and divide others. While this could provide more strategic options than are currently available, it would exacerbate the missing shot values. Shortening the course would likely add some mid to short irons off of the tee, but not add

any from the fairway. In addition, shortening the holes would eliminate some of the existing short irons and pitches from the fairway, and again, the customer base would likely not approve of a smaller course that takes up as much room as the one they are currently playing.

The final option is to expand the area the course consumes. While displacing other recreational facilities goes against the grain of most alternative courses, the fact that the parks department is going to relocate the Douglass Family Center makes it a more plausible scenario. In order for the golf course to be able to expand there needs to be enough width for two holes; one hole going towards the community center and one coming back down the ridge towards the north, since the area on top of the ridge is not wide enough to accommodate two holes. This means the second hole would have to go though the area currently occupied by the football field. To pursue this option then, there needs to be an appropriate place to relocate the existing football field. Since driving ranges usually occupy a large open area, it makes sense to try and incorporate the relocated football field with the practice range, which would move the football field to the Monon Railyard site. Finally, the basketball and tennis courts north of the community center would also need to be relocated. With the golf course and swimming pool already next to each other, moving the tennis courts to the shared parking area would allow Douglass Park to offer a program similar to the Lifetime Sports Academy in Fort Wayne.[7] Indy Parks already plans to move the Douglass Family Center to this area, and moving the tennis courts there as well would allow it to become the hub of

[7] See pages 40-42 in Chapter 4 for additional details.

recreational activity at Douglass Park. The basketball court could then be relocated to either another location in the park or to the railyard.

After reviewing the options, I choose to go with expanding the course footprint when redesigning Douglass Park. This option provided the best opportunity to address the missing shot values on the existing course, provide more strategic options, and preserve some of the more interesting and unique architectural features. The expected relocation of the community center made this choice easier as well, since the function in the southeast portion of the park – the most logical place for the golf course expansion – was already going to be changing.

The next step was to layout a few preliminary routings to see which would be fit the site (figure 6.15 and 6.16). After studying the different routings and their relative merits, it quickly became clear that figure 6.15 was the best alternative and this routing became the basis for the final redesign.

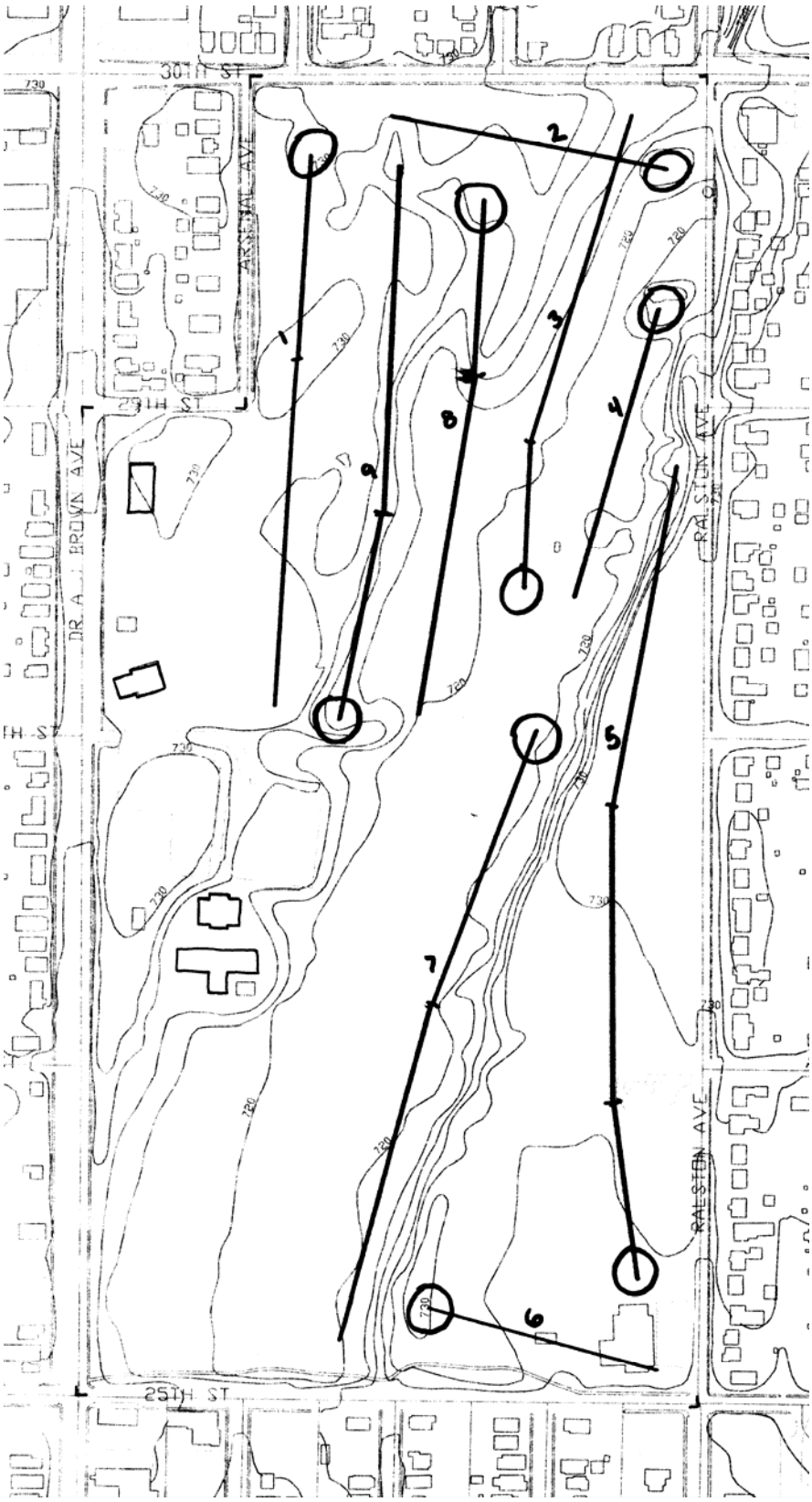


Figure 6.15: Routing alternative A

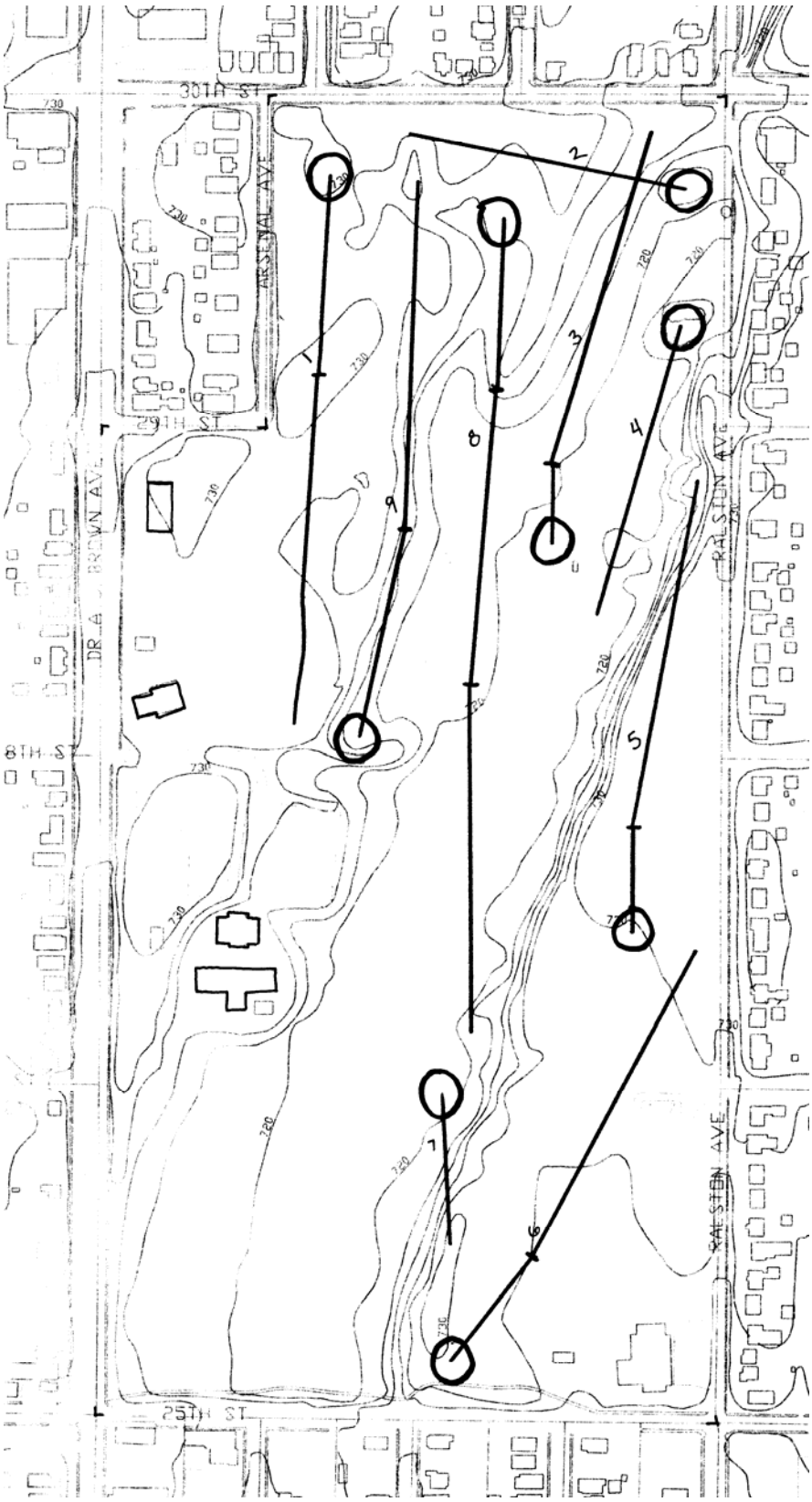


Figure 6.16: Routing alternative B

Monon Railyard Learning Facility

When laying out the learning facility there were two main keys: first, to make it easily accessible for both golfers and non-golfers, and second, to provide a wide selection of shot options along with a variety of places and settings to practice them.

Looking at accessibility first, both the research and case studies supported the idea of a putting course as an easy and fun way to introduce people to the game. Putting is the simplest golf skill so it is a logical place to begin. Although some instructors start by teaching a full swing this design supports the learning philosophy expressed by Wethered and Simpson eighty years ago. "The foundations of play should be laid with the putter and that on this should be built up the more solid superstructure of the game."[8] A putting course that was laid out on a single large green would be most appropriate for this learning center, since it allows for the widest variety of configurations.

To keep building the game from the ground up, chipping and short game is the next step. The research on practice facilities suggested the best ones have extensive short game practice areas that include multiple chipping greens and places to practice bunker shots. When conducting interviews Sam Puryear, a former First Tee program director, strongly advocated for a few 30 to 40 yard holes, where beginners could experience some early success as the best way to keep new players interested. Combining these ideas, the practice facility should have a short game area that could be converted into a short loop of holes or vice versa, a short loop of holes that could be used to practice short game. Ideally, the order and distance of the short holes could be variable as well, to provide further options for players.

[8] Wethered and Simpson, 176.

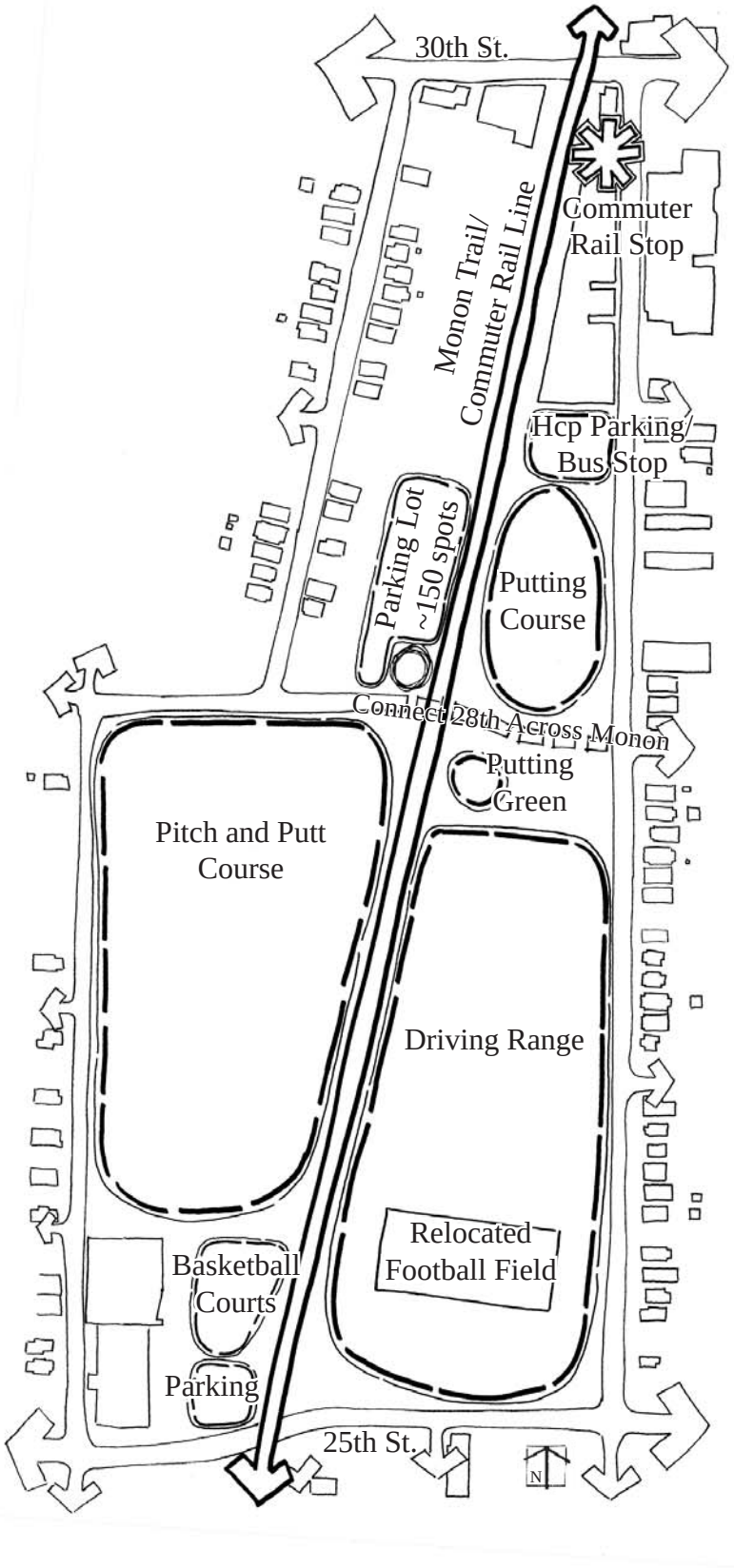
The last step was the design of the practice range. In order to accommodate a substantial number of players and allow them to hit all their clubs, the range needed to be at least 100 yards wide and 300 yards long. Also, locating a small tee box on the opposite end of the range from the main tee would be a good place to teach beginners and lessons. The range itself should try to provide shots that look like "real golf problems" as Peter Oosterhuis said.[9] This means greens at which to aim, a few bunkers, and maybe even some trees. In additional, although a driving range is long – in this case 300 yards – not many people can hit their ball to the back third of it. This means the back of the range could share space with a football or soccer field. While these fields are in use, the range could be shut down completely or switch to irons only hitting, supporting multiple uses for the land.

Additionally, both the commuter rail stop and the learning facility will need space for vehicular parking. Since the commuter rail stop would likely see the highest use during the week and the learning facility would be most used in the evenings and on the weekends, a parking lot that could serve both functions would be best. At the SDAT charrette neighborhood residents also mentioned there was no good place in this portion of the Monon Trail where they could park to use the trail, so a small trailhead – either in combination with the commuter and learning facility lot or separate – is needed. Also, the site should have a building from which to run the learning facility. Using these criteria, I developed three concepts for the layout of the learning facility, which follow in figures 6.17, 6.18, and 6.19, along with notes on the advantages and drawbacks of each design.

[9] Richardson, 351.

After weighing the relative merits for each concept, I choose Concept #1 as the basis for the design of the learning facility. The design radiated out from a central node, had a strong connection with Douglass Park, the widest variety of options for the configuration of the pitch and putt course, and the best fit for the practice range. In addition, the functions in the southern part of the site created a secondary node with the relocated football field, basketball courts, and Monon trailhead.

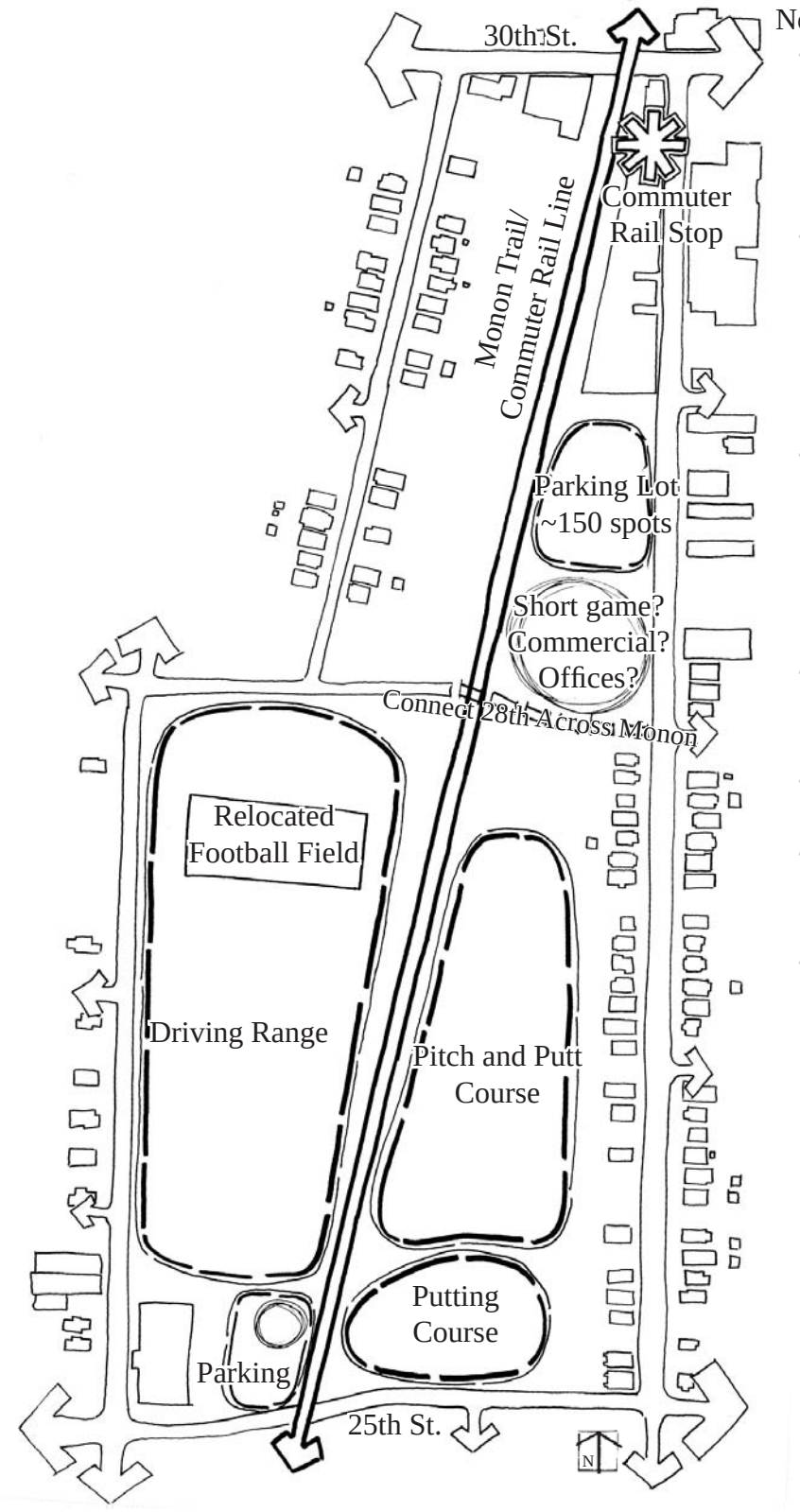
Figure 6.17: Concept 1 for Railyard



Notes:

- Everything radiates out from central building
- Easy to establish a strong connection from Douglass Park Golf Course to Learning Facility along 28th St. corridor
- Shared parking for golf and rail stop
- Preserves existing businesses on 25th St.
- Takes entire area, including houses, east of trail
- No designated short game practice area
  - Integrate it with pitch and putt
- Monon on right of practice range, but rail tracks are a buffer between
- Driving range oriented to south is not ideal
- View of downtown from driving range tee
- Parking off of 25th St. can serve Monon, relocated football field, and basketball courts
- Could conceivably go in two phases, by combining driving range with pitch and putt initially
  - This would require relocation of some businesses in SW corner

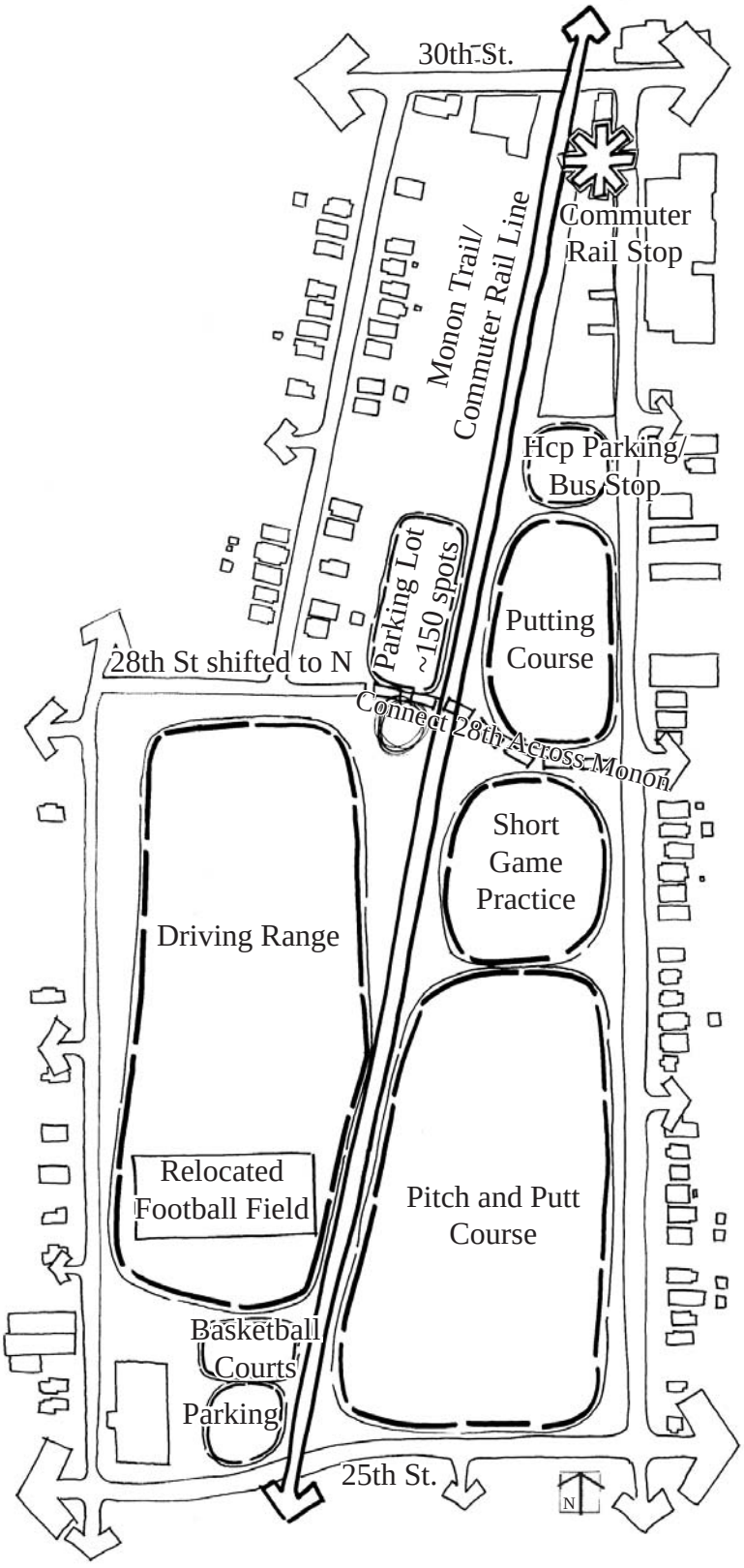
Figure 6.18: Concept 2 for Railyard



Notes:

- Golf facilities separated from rail stop
  - Golf centered around 25th St., rail around and 30th St.
- Weaker connection between Douglass Park and Learning Facility, can connect across 28th St, but no terminus in railyard
- Smaller pitch and putt does not allow for as many options
  - Safety could be an issue with narrow course
- Monon located to the right of the driving range, no buffer
- Driving range oriented to north is good
- Can preserve some, but not all, businesses on 25th St
- Where to locate parking for football?

Figure 6.19: Concept 3 for Railyard



Notes:

- Would require shifting western portion of 28th St. to the north
- Can establish connection between Douglass Park Golf Course and Learning Facility, but more difficult than for Concept #1
- Shared parking for golf and rail stop
- Can preserve some, but not all, businesses on 25th St.
- Takes entire area, including houses, east of Monon
- Large short game is separate from Pitch and Putt
- Start of pitch and putt located away from other activities, potentially requiring an additional worker to supervise
- End of driving range overlaps Monon
  - Safety issues there
  - Balls that are hit left tend to be long, so could be significant problem
- View of downtown from driving range tee
- Driving range oriented to south is not ideal
- Parking off of 25th St. can serve Monon Trail, relocated football field, and basketball courts

Master Plan

The following Master Plan (figure 7.1) is based on the research and case studies conducted for this project, the history of the area, and the goals and objectives set forth in the design development. It includes the renovation of Douglass Park Golf Course, the design of a learning center at the Monon Railyard, and the development of a connection between the two sites, each of which will be discussed in more detail later in the chapter.

Figure 7.1: Master Plan

Douglass Park

Douglass Park Golf Course

The redesigned Douglass Park Golf Course offers players a strategic challenge while giving them a chance to develop their golfing skills. In order to accomplish this, a new routing for the course has been proposed which draws on the existing layout, although all the holes have been changed in some manner. This redesigned routing address the two major issues present in the current course – lack of strategic options and missing shot values – in a number of ways.

As the research for this project indicated, two elements greatly impact the strategy needed to play a golf hole. The topography of the land and the placement of the bunkers, but before either of these can effect the golfer's strategy there needs to be sufficient width to support multiple lines of play to the hole. Without sufficient width a player does not have to pick the best line of play, judging the different options and weighing them against his skill, instead there is only one route to the hole and no advantage can be gained for correctly positioning the ball. As mentioned when going over the history of the course, the existing layout at Douglass Park is very tight, with hole centerlines a mere 160 to 175 feet apart. Adding holes in the southeast corner of the park and removing holes from the center of the course will give all the holes more width, which in turn creates more options. In addition, many of the trees on the course, especially those by the current 6th, 7th, and 8th holes, are narrowing the playing corridors. By moving a few holes and removing a few trees, Douglass Park should feel and play much more open, giving players a variety of strategic options.

The topography of the current course is pretty tame, so any grading will have to be fairly subtle to blend in with the existing architecture. To keep earth-moving to a minimum but still impact play, proposed topographic changes were concentrated around the landing areas and greens. In addition, there are some interesting topological features on the course that are not being well used in the current routing. This proposed routing adjusts some holes to take better advantage of the existing land.

Along with topography, the placement of hazards greatly impacts the strategy of a golf hole. Since Douglass Park does not have a water hazard – and it would be rather impractical to add one – the redesign is only concerned with locating bunkers. The bunkers on the current course are limited, both in their numbers and impact. Since bunkers are maintenance intensive, the design did not add a significant number to the course, but instead strove to place them where they would have a greater effect on play. The redesigned course has only ten bunkers, but they all require careful consideration by the player.

By opening up the course, adding some topography, and repositioning the bunkers, the proposed routing for Douglass Park Golf Course requires a player to choose their best line of play to the hole, forcing them to think critically about their game and the strategy needed to play the hole. Since there is more than one route to the green, golfers of different abilities should be able to attack the routing differently.

The other major concern with the existing routing is the missing shot values. Currently Douglass Park Golf Course requires little more than a driver and a wedge to play. The proposed routing stretches some holes and shortens others to provide a greater

variety of hole lengths that in turn provide a greater variety of shots. The scorecards for the proposed course (figure 7.2) and the existing course (figure 7.3) are shown below.[1]

Proposed

Hole	Par	Back	Middle	Front
1	4	375	365	305
2	3	170	155	128
3	4	348	334	247
4	3	202	187	153
5	5	553	536	458
6	3	118	102	87
7	4	412	396	304
8	4	332	318	268
9	4	402	382	318
Totals	**34**	**2912**	**2775**	**2268**

Figure7.2: Scorecard for proposed course

Existing

Hole	Par	Back	Middle	Front
1	4	382	358	338
2	3	195	189	130
3	4	265	250	193
4	3	196	190	163
5	4	335	325	250
6	4	323	279	262
7	3	211	204	189
8	5	496	476	365
9	4	374	359	304
Totals	**34**	**2777**	**2630**	**2194**

Figure 7.3 Scorecard for existing course

In addition to providing more strategic decisions and shot options, the redesigned course needed to be beginner friendly. Junior tees, tees usually positioned between 120 to 250 yards from the green and designed for play by beginners and juniors, are an option, but I prefer the idea of a junior par from the forward tees. This allows new golfers to start playing holes from the same place as more experienced golfers but gives them more shots to reach the green. Also, junior tees, by their nature are usually a long way from the previous green, requiring juniors and beginners to walk a long way to start playing the hole while others are already hitting. One or more junior pars, based on the skill of the player, could be easily determined for the proposed course and printed on a separate scorecard.

[1] Refer to Figure C.5 in Appendix C for a breakdown of expected shots at the redesigned Douglass Park.

Also, to provide an introduction to a “real” golf course, but not overwhelm a beginner, the redesigned course can be broken up into two distinct loops of comparatively equal difficulty. The first loop composed of five holes – 1, 2, 3, 8, and 9 – contains a mid length par 3, two short par 4s, a mid length par 4, and a long par 4. The second loop is a four hole group consisting of holes 4, 5, 6, and 7 and includes a short par 3, a long par 3, a mid length par 4, and a long par 5. These two shorter courses within the Douglass Park Golf Course give the facility an extra flexibility when it comes to beginners. Instead of sending out a few groups of new players, which can slow play down considerably, they management can split up the course, putting beginners on one loop and more experienced players on the other. It also allows a group from the learning center to come and practice on a few holes without disturbing play.

Douglass Park Golf Course now provides golfers with more of a challenge while remaining beginner friendly. The new design also remains true to the existing architecture of the course. The following pages show the plan of the redesigned Douglass Park Golf Course as well as the designs and descriptions of the individual holes.

Figure 7.4: Douglass Park and Douglass Park Golf Course

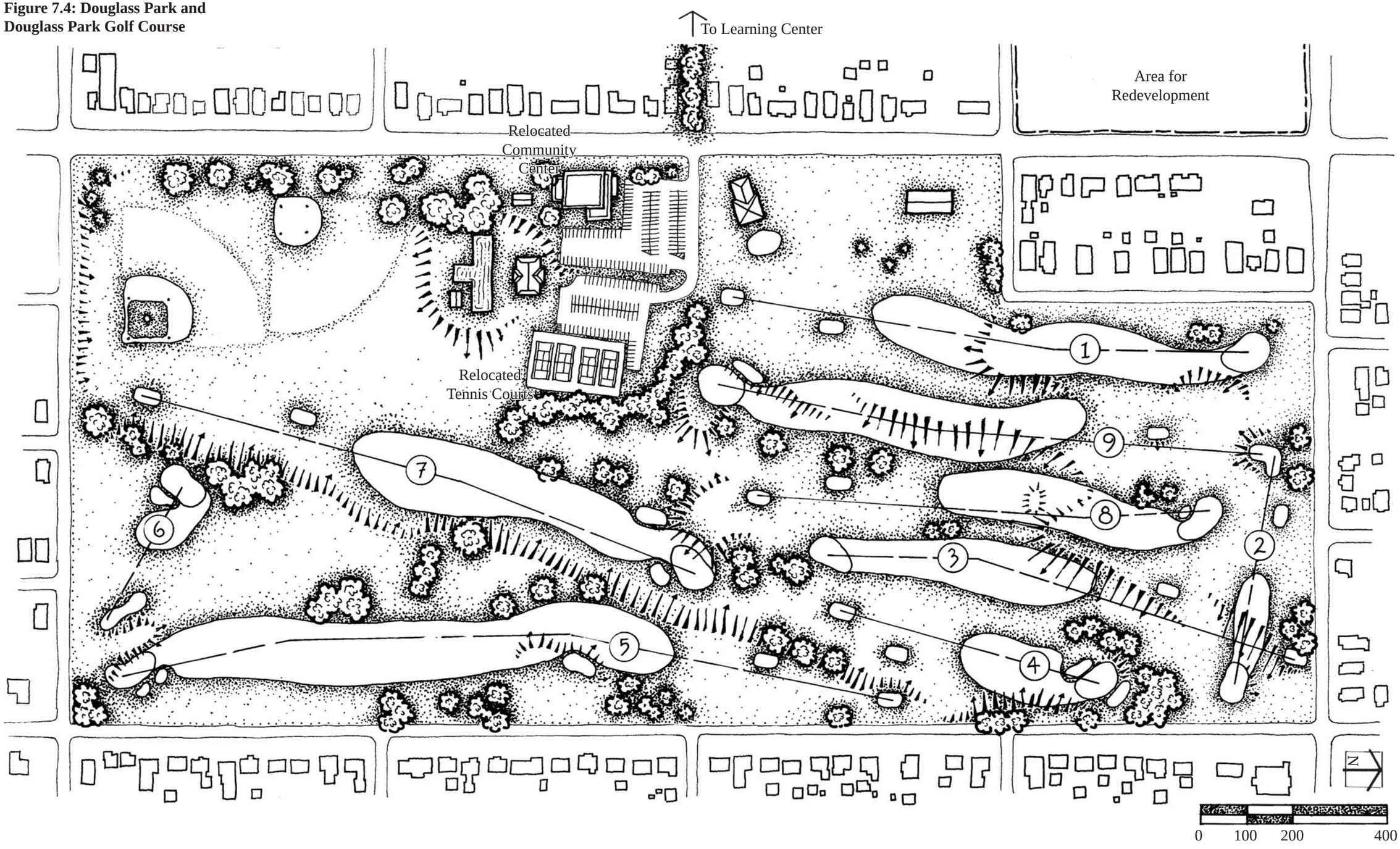
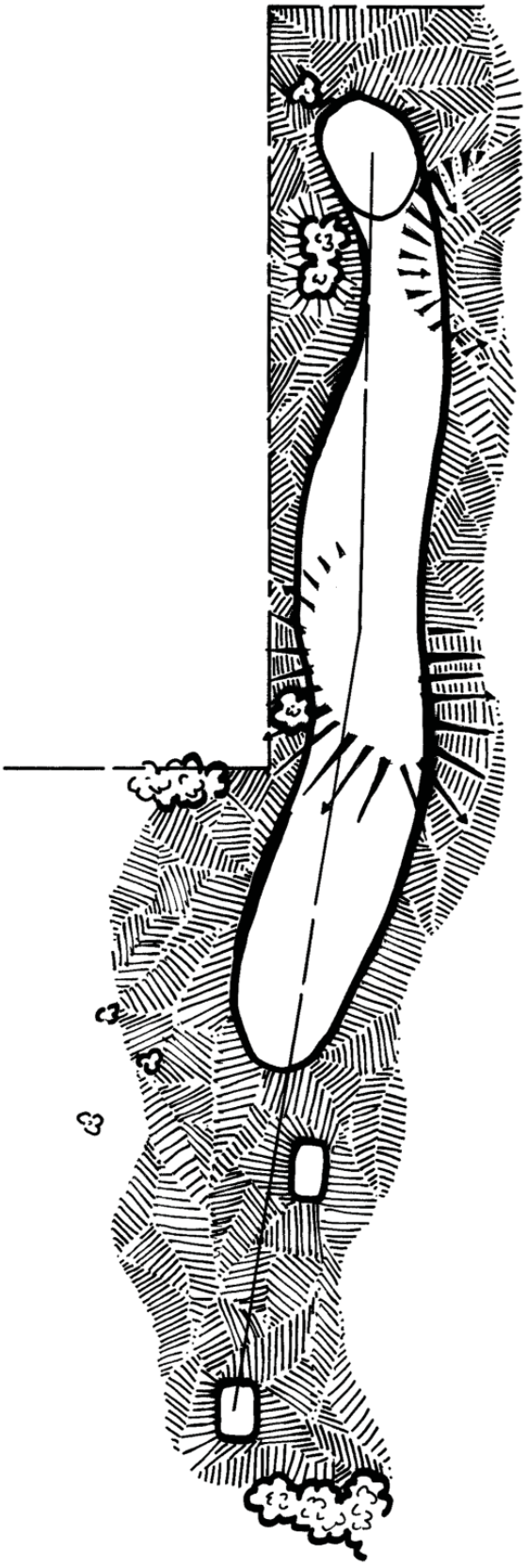


Figure 7.5: Hole 1, proposed

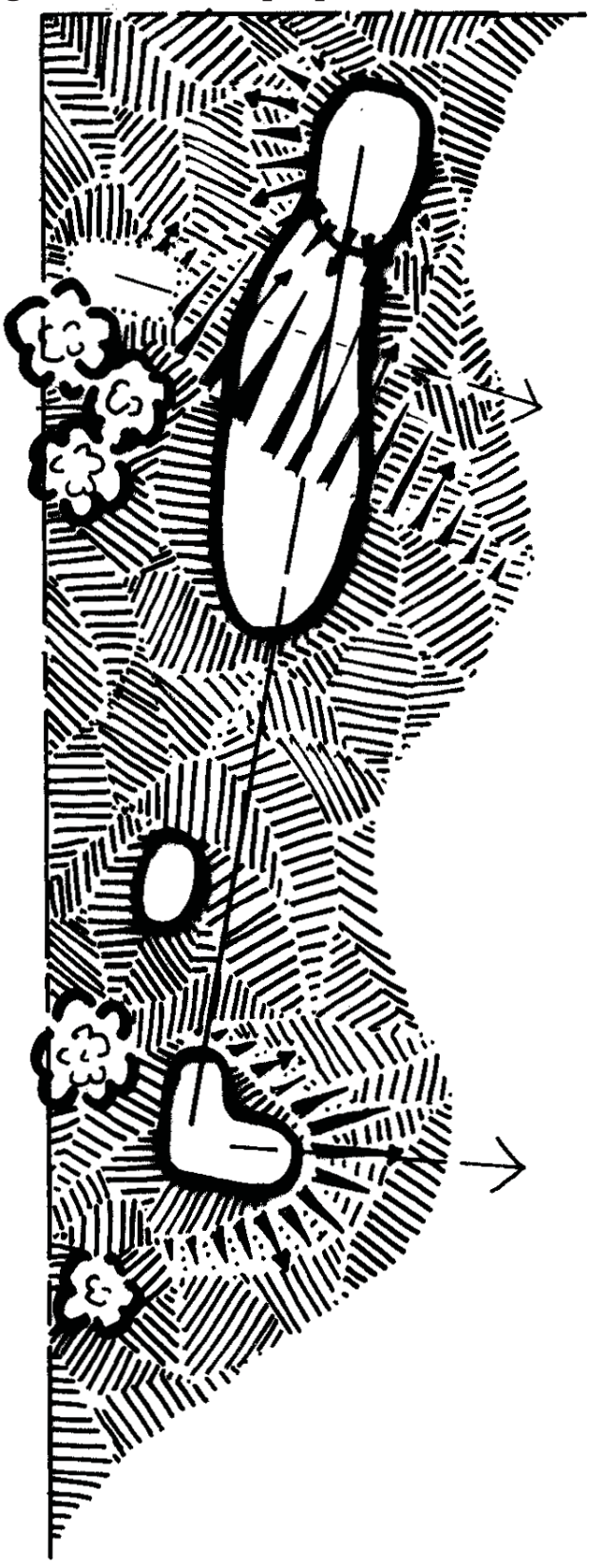


Hole 1 - Par 4
375 yards
365 yards
305 yards

The proposed first hole is similar to the existing hole. The minor rise in the landing area has been accentuated, giving a slightly uneven stance for the second shot. The best angle to approach the green is from the right edge of the fairway due to the slope of the fairway, the location of the trees near the green, and the slope of the green which slopes on all sides to the middle left. A hollow has been added to the front right of the green to catch any shots that come up short and right or attempt to bail out to that side. An up and down from this hollow will require a delicate touch since the green is running away from the player at that point, but a golfer who misses the green on the left half will have an easier shot into the slope of the green. This is a challenging first hole.

For beginners: The first shot should land around the start of the rise in the fairway. This will give the golfer a slight uphill stance, which is usually easier to hit from. The second shot should go to the middle-right of the fairway, leaving a gap between the swale on the right and the trees on the left to run their third onto the green.

Figure 7.6: Hole 2, proposed



Hole 2 - Par 3
170
155
128

The proposed second hole is also very similar to the existing hole. The only major change is that the tee box has been moved forward and to the right. By shortening the hole, it becomes a mid-length par 3, differentiating it from the longer 4th hole. By slightly elevating the tee, a portion of the green is now be visible from the back tees and the swale in front will play with the golfer's depth perception. Also, by moving the tee to the right, the 3rd tee is more out of the way for any pulled shots. Finally, adding of a few trees by the 3rd tee box should provide a bit of additional protection. The green tilts slightly from left to right and runs off the edges, by mowing down the area around the green a bit more there are be numerous shots a player can try to execute an up and down should their tee shot fail to land on the green.

For beginners: The entire green is visible from the tee. Some players might be able to hit the green with their tee shot, but most will be short in the swale. This will leave the golfer with an uneven lie and a wide variety shot options to try and get their ball on the green.

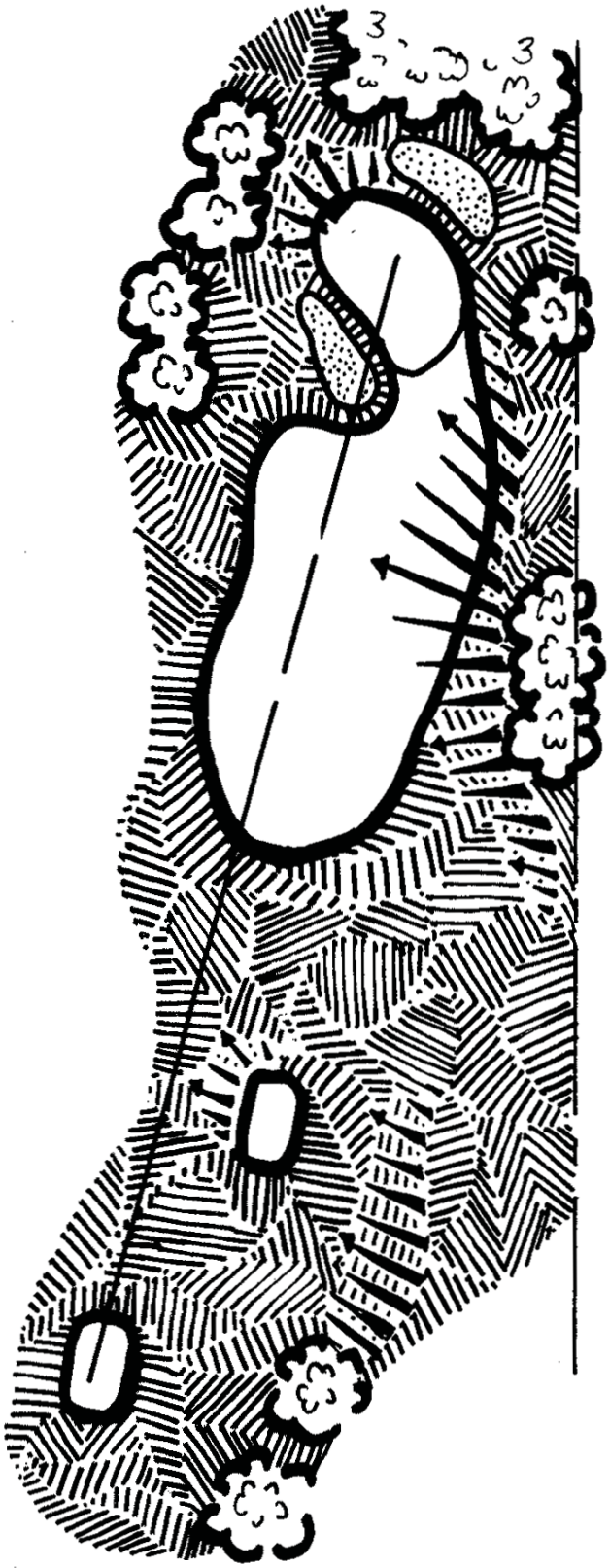
Figure 7.7: Hole 3, proposed

Hole 3 - Par 4
348
334
247

The tee shot for the proposed 3rd hole, including the crossover with the 2nd hole, is the same as the existing one, but the rest of the hole has been altered. Although still a short par 4, the green has been pushed back a bit, requiring a wedge or short iron for the second. Still a good birdie opportunity, the green now runs away to the back left. If the player wants to run the ball onto the green, a drive placed on the right is best, if they are trying to fly it in, the best shot is a slight fade from the left edge. Two trees just past the landing area help turn the hole and visually separate it from the 8th hole.

For beginners: By hitting along the right edge, they should get some extra distance from the ridge off their tee shot. Some players will be able to reach the green with their second, for those who cannot, placing their second shot to the center right of the fairway is best so they can run the ball onto the green with a mid or short iron.

Figure 7.8: Hole 4, proposed

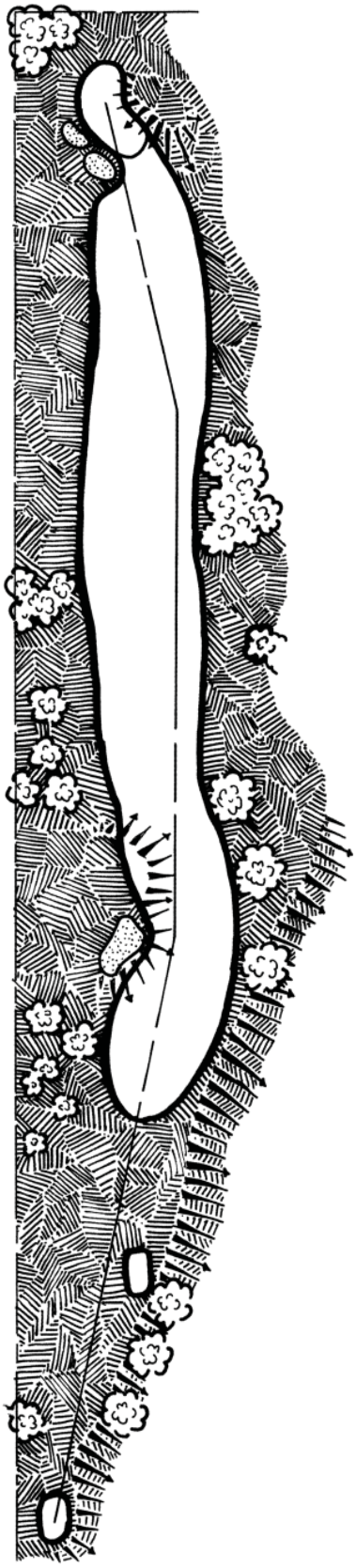


Hole 4 - Par 3
202
187
153

The proposed fourth hole uses the same green as the existing hole, but the tee box is shifted to take advantage of the existing topography. The hole has remained about the same length, giving the course a tough, long par 3, and the green slopes from the front right to the back left. The new hole orientation gives the player two very different shot options. They can choose to hit their ball along the right edge and let the topography of the land steer the ball onto the putting surface or take aim for the green and hit a slight fade to hold the ball up against the slope of the green. The bunker in the front left of the green has been extended towards the green, so that balls that come up a bit short will be in the hazard. Another bunker has been added behind the green to catch balls that fly over the green. This arrangement of bunkers requires the golfer to be very accurate if they are trying to land and stop the ball on the green. In addition an alternative tee 30 yards farther back can be used to make the hole even more challenging.

For beginners: This hole will be difficult for beginners to reach with their tee shot. This leaves them with two options. Playing along the right edge, they will have an uneven stance, but one that will help turn the ball towards the green where they can use the topography of the land to guide their second shot onto the putting surface, or they can play their tee shot just in front of the bunker, leaving a lofted wedge to the green.

Figure 7.9: Hole 5, proposed



Hole 5 - Par 5
553
536
458

The proposed fifth hole shares a tee with the existing fifth, but is a par 5 extending all the way to 25th Street. A large mound with a bunker cut into the face has been added to the left edge of the landing area. Off of the tee, the best line is along the edge of the bunker. Long hitters can aim over the bunker and try to get an extra kick from the downward sloping fairway. The best place to approach the green is from the right edge of the fairway, but golfers need to be careful they don't go too far right on their second shot and end up in the trees. The small mound to the right of the green will help steer balls hit that way onto the putting surface. The green boomerangs slightly around the mound leaving an exciting putt if the ball is not hit to the right portion of the green. Bunkers on the front left mean a shot from the left edge of the fairway will need to be exact to stay on the green. A few trees have also been added along the left edge to prevent balls pulled to the far left from going into the adjacent neighborhood, and in addition, the left to right slope of the fairway should make it more difficult to hit a shot to the left.

For beginners: This will be the hardest hole on the course. The best shot off the tee is as close to the hazard as they dare, then down the fairway. As they approach the green, the best angle will be from the right side of the fairway, the farther right they are, the better the angle, and the more help the mound will provide to steer their ball onto the green.

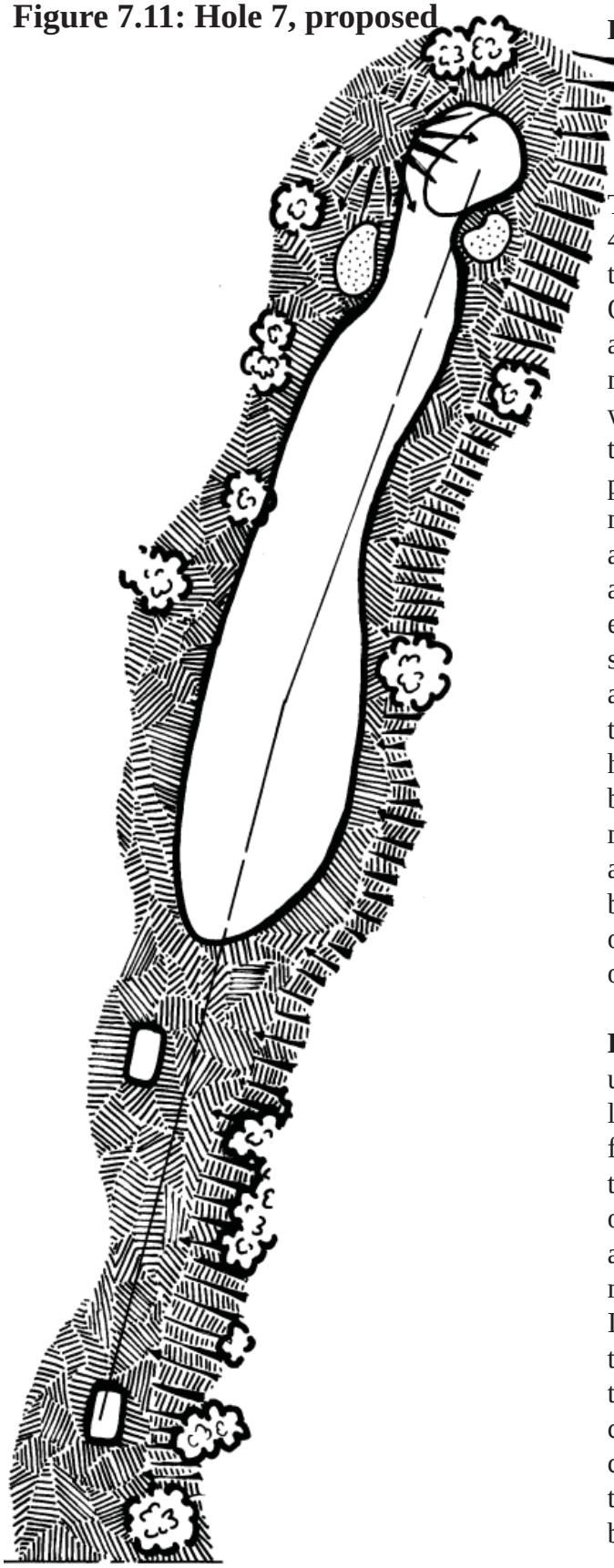
Figure 7.10: Hole 6, proposed

Hole 6 - Par 3
118
102
87

The proposed sixth hole is an entirely new creation. This short par 3 is slightly longer than the original 4th hole, and gives the golfer a bit of a break between the long 5th and 7th holes. The green for this hole is situated against the top of the ridge that runs through the course, so any balls hit over will have a long shot back up to the green. With a bunker in front and most of the green falling away, accurate yardage is a must. The best shots will just clear the bunker, then run out towards the hole.

For beginners: A short hole where most players will have a chance to hit the green. The forward tees are offset to the right, giving the golfer a hazard free route to the green. However if the pin is in the left half of the green, they will have to brave the right edge of the bunker to get their ball close to the hole.

Figure 7.11: Hole 7, proposed

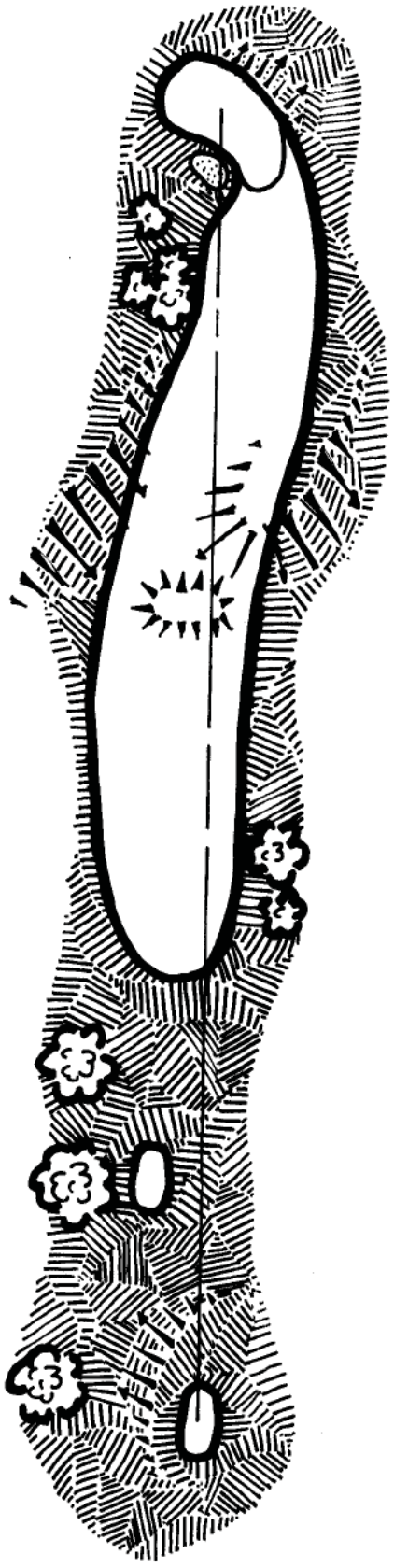


Hole 7 - Par 4
412
396
304

The proposed 7th hole is a long par 4, playing along the bottom part of the ridge running through the course. Off the tee, the best line to the hole is along the middle left, but long hitters need to beware of going too far left where they would be blocked by a tree. For the long second shot, the best play is along the left edge, letting the mound steer the ball to the green, but a bunker short of the mound prevents a player from running their ball the entire way there. If the golfer's tee shot goes too far right, there is also a danger they could get blocked by trees. In addition, from the right a hitter will have to carry the front right bunker to get to the green, but the mound behind the green should act as a backstop. For shorter hitters, the best second shot is just short or right of the left bunker, leaving them an open shot to the green.

For beginners: The forward tees are up significantly, making this hole a bit less difficult. Because the tee is so far forward, the best line of play is down the center right of the fairway. This opens up the shot to the green, and allows them to use the slope of the mound to bring the ball onto the green. If they go left, not only will they have to worry about the bunker short of the green, but too far left and the tree could come into play. If the player chooses to lay up on their second shot, the more they tempt the hazard the better their angle to the green.

Figure 7.12: Hole 8, proposed



Hole 8 - Par 4
332
318
268

The most unique feature on the existing course is the cop in the center of the 8th fairway. The proposed 8th hole is a par 4 instead of the existing par 5, but places the cop right in the landing area, instead of between shots, so that it will have more of an impact on play. The best place to approach the green is from the right edge, but the best way to get there is to hit a slight fade off the tee, so the two trees that separate the 3rd and 8th holes do not get in the way. From the right side, the golfer should have just a short wedge or iron remaining into the green. If the player goes left off the tee, the cluster of trees short of the green will block the approach. Then their options are to go over the trees, which should be possible with a short iron or to aim to the right edge of the green and play a draw to the center. The green is slightly crowned, with the front right running back towards the fairway, and the back left running the opposite direction. The small, deep bunker on the front left exerts an influence larger than its meager size might suggest and needs to be considered when playing any approach shots.

For beginners: The cop should also come into play on their tee shot, although it probably be at the back portion of the landing area. The best approach is still from the right, so if they do not reach the green in two, the second should be played to the right edge of the fairway. The bunker near the green is probably the most difficult on the course, so beginners should give it a wide berth.

Figure 7.13: Hole 9, proposed

Hole 9 - Par 4
402
382
318

The proposed 9th hole is much the same as the existing one. The tees have been moved back about 25 yards and are shared with the tees on the 2nd hole. By moving the tees back, the ridge running across the fairway will come into play more. Additionally, the tees have also been moved up in elevation, so players can see the Indianapolis skyline. The best line to the green is from the left side of the fairway, and the existing ridge should direct balls in that direction, but too far left and the golfer risks being blocked by the trees. The left edge of the fairway also offers a clear view to the green, but the farther right a player drifts, the more their view is blocked by the ridge near the green. Since the green is a punchbowl, any shot near the surface will likely come onto the green, although the right edge is more banked than the rest. The bunker on the front right is a bit unusual because it is above the green, but it will catch any balls that fall short and shots that misjudge the effect of the slope.

For beginners: The ridge in the fairway should just catch their shot off the tee, giving the ball a kick to the left and a bit of extra roll. The best approach is still from the left, and if the player is not able to reach the green with their second, it is best to stay along the left edge. For the approach to the green, the fairway is wide open or the player can use the slope on the right, but they should be careful not to hit the ball through the slope and end up in the bunker.

Douglass Park

The rest of Douglass Park was also affected by the design. While the baseball field, softball field, and swimming pool stayed the same, the remainder of the park underwent changes due to the renovation of the golf course. The basketball court and football field have been moved to the Monon Railyard site, while the other displaced recreational facilities were relocated within the park.

The biggest of these relocations was the move of the community center. When talking with André Denman of Indy Parks, he indicated they planned to move the Douglass Family Center to the area presently occupied by the shared parking lot for the golf course and swimming pool. After looking at the proposed site, I decided to move the community center slightly from where Indy Parks had planned to relocation it. Instead of locating it on the parking lot, the design places the Douglass Family Center between the parking lot and Dr. Andrew J. Brown Ave. This new placement gives the community center greater visibility along Dr. Andrew J. Brown Ave. and also places it next to the existing picnic pavilion. The combination of the community center and picnic pavilion would be able to host a number of events such as family reunions, birthday parties, or neighborhood gatherings.

Moving the Douglass Family Center next to the picnic pavilion allows the tennis courts to be relocated to the current parking lot. Although this move does consume some of the existing parking – about thirty spots – there is a significant amount of parking remaining. In addition, the tennis courts are now adjacent to the swimming pool and golf course, meaning it would be very easy for Indy Parks to implement a program at Douglass Park similar to the Lifetime Sports Academy in Fort Wayne. Finally, moving

the tennis courts places all the recreational facilities at Douglass Park in a compact area, with the new community center as the central hub.

Douglass Park – Monon Railyard Connection

Currently there is virtually no connection between Douglass Park and the Monon Trail/Railyard. This design proposes a simple pedestrian boulevard along 28th St. to physically and visually connect the two sites.

The design consists of a wide sidewalk between an alleé of trees. The ten foot sidewalk should supply enough room to comfortably accommodate families heading to the Monon Trail or golfers going between the learning center and the golf course, while the trees provide shade and visually lead the pedestrians between the two facilities. The following section (figure 7.14) shows a portion of the connection between Dr. Andrew J. Brown Ave. and Columbia Ave. to the west, where there is still vehicular traffic. After Columbia Ave., the path switches to pedestrian only as it goes over the rail tracks and connects with the Monon Trail.

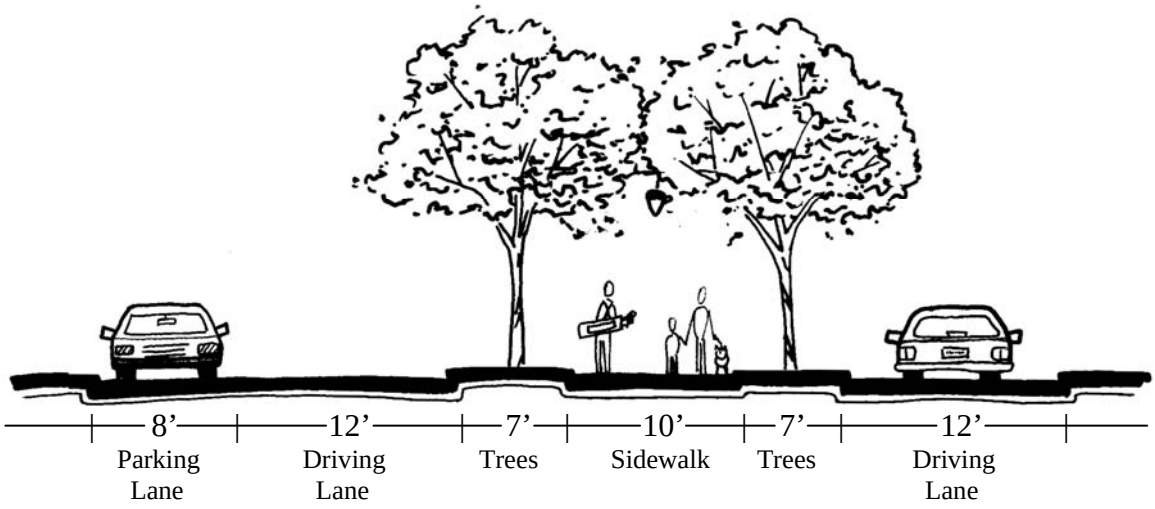
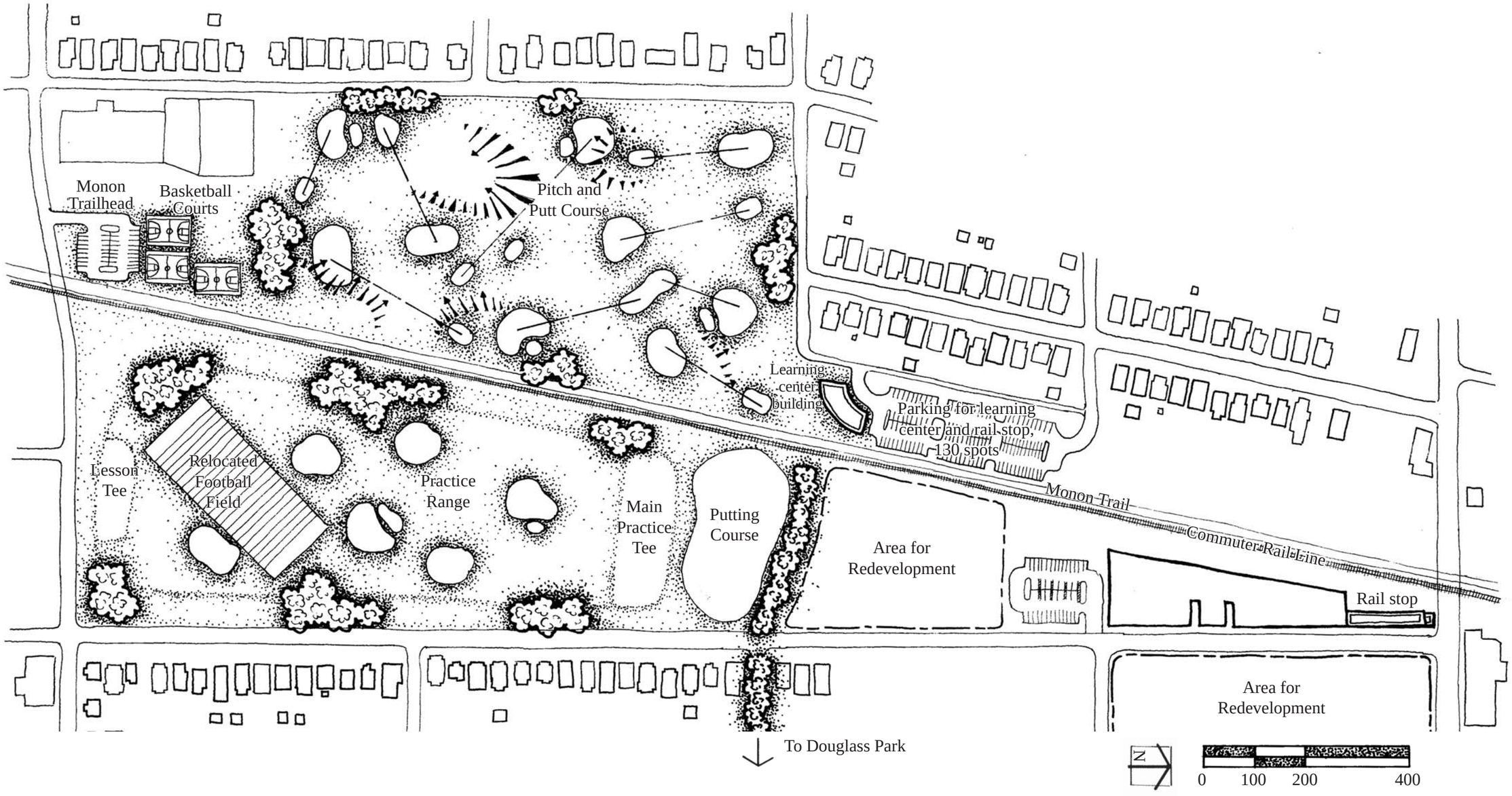


Figure 7.14: Section of connection between Douglass Park and Monon Railyard

Learning Center at Monon Railyard

The design for the Learning Center at the Monon Railyard allows players to learn and practice the many aspects of the game while giving both golfers and non-golfers a fun, easily accessible way to experience it. The putting course, pitch and putt course, and practice range allow players the opportunity to work on different facets of their game, and the putting course and pitch and putt course can both be arranged in a variety of configurations and used for practice or play. The following drawing (figure 7.15) shows the design of the learning center and the different elements it contains.

Figure 7.15: Learning Center at Monon Railyard



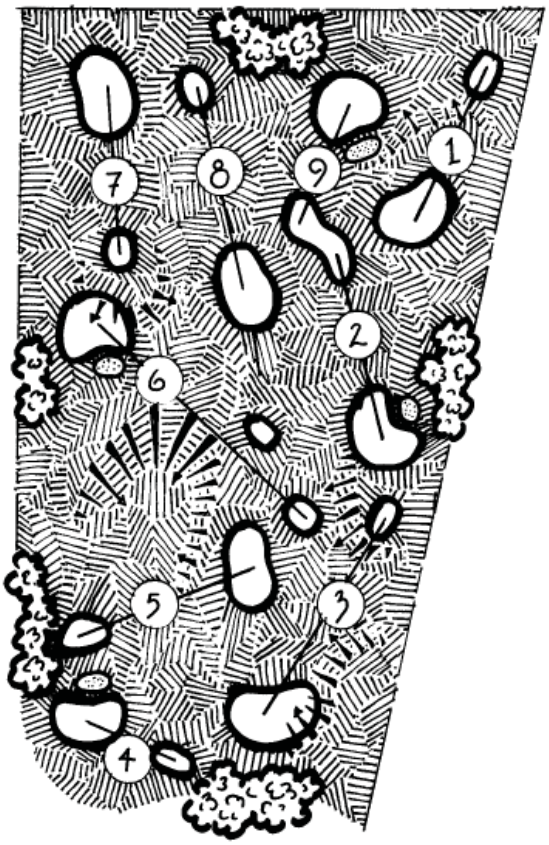
The design of the learning center radiates out from a central hub, similar to the redesign of Douglass Park. The shape of the central building, added just west of the Monon Trail and north of 28th St., recalls the railroad roundhouses that were once present on the site. The building serves as the offices for the learning center and has a place to rent clubs and golf balls. In addition, the building could potentially house a small café or snack shop where people could stop for a quick bite after golfing or leaving the commuter rail station. Parking for both the commuter rail and learning center are located north of the proposed building.

The first element of the learning center is the putting course. In the final design the putting course is located just south of the pedestrian connection where it will have a high level of visibility. In the original concept, the putting course was located to the north of this connection, but relocating it gave the golf activities a more compact footprint which provided a larger area for redevelopment north of 28th St, but also made the putting course a bit smaller. The putting course in the final design covers just under two acres, and consists of a single large putting surface with no internal hazards, similar to the Himalayas at St. Andrew. It starts with mild slopes closest to the rail line before transitioning into larger undulations. This layout gives the putting course the widest possible number of configurations and allows the facility to use it as both a practice green and putting course. On days where they have a large number of lessons, they can use the entire surface as a practice green, or when there are fewer people practicing, they can section off a piece of the green for practice and set up the putting course on the remaining portion.

The pitch and putt course comes also comes with a wide variety of configurations. Composed of nine greens and ten tees, the pitch and putt course has nine holes that range in length from 43 to 124 yards. In addition, by removing the flags from some of the greens, it can be converted into smaller loops of longer holes. A few of the possibilities for these practice courses can be seen in the diagrams on the following pages (figures 7.16 and 7.17). Also, the pitch and putt course could be easily converted into a large short game practice area when needed, with areas for people to practice chipping, pitching, and bunker play. The course serves as a good transition between practice and play. It gives beginners a place to build their confidence, first using the short holes then building up to short loops of longer holes while more experienced golfers can also use the facility to practice or as a place to play a quick round. Because of the compact layout, the pitch and putt can be played in a relatively short amount of time, allowing golfers to play a few holes without consuming an entire afternoon or evening. It is also a good place for families to come and play together. The short holes and short times it takes to play means kids can play without getting overwhelmed or bored. The flexibility offered by the layout of the pitch and putt gives both beginning and experienced golfers a multitude of ways to experience the game.

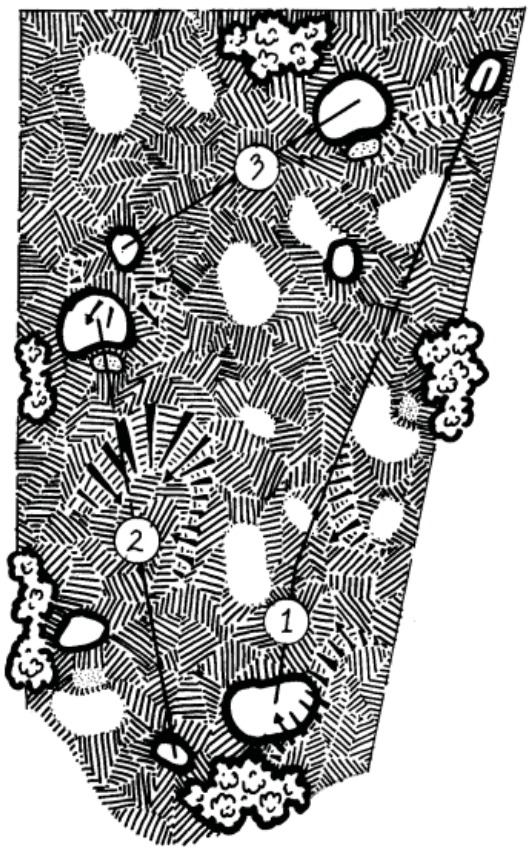
Figure 7.16: Potential configurations for the Pitch and Putt Course

Alternative #1



Hole	Distance
1	72
2	83
3	97
4	42
5	85
6	124
	87
7	71
8	88
9	55
Total	**717**
	680

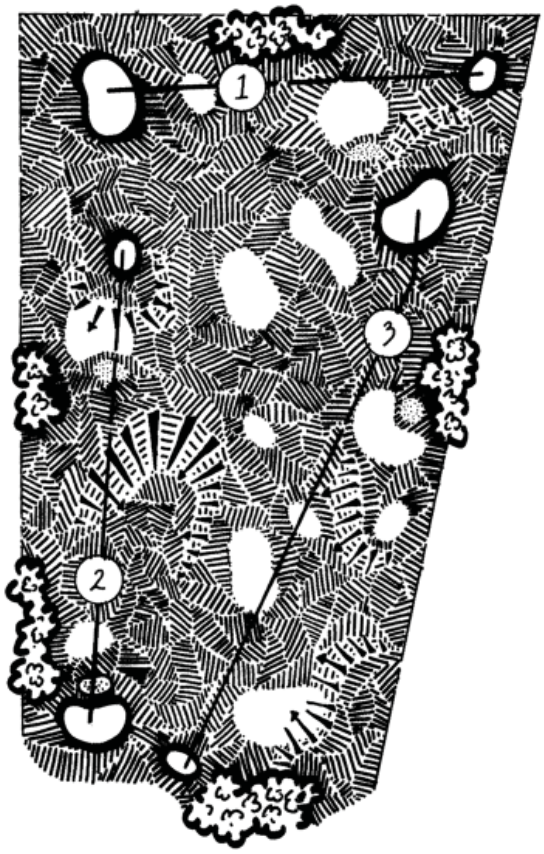
Alternative #2



Hole	Distance
1	292
	197
2	193
	135
3	90
Total	**575**
	422

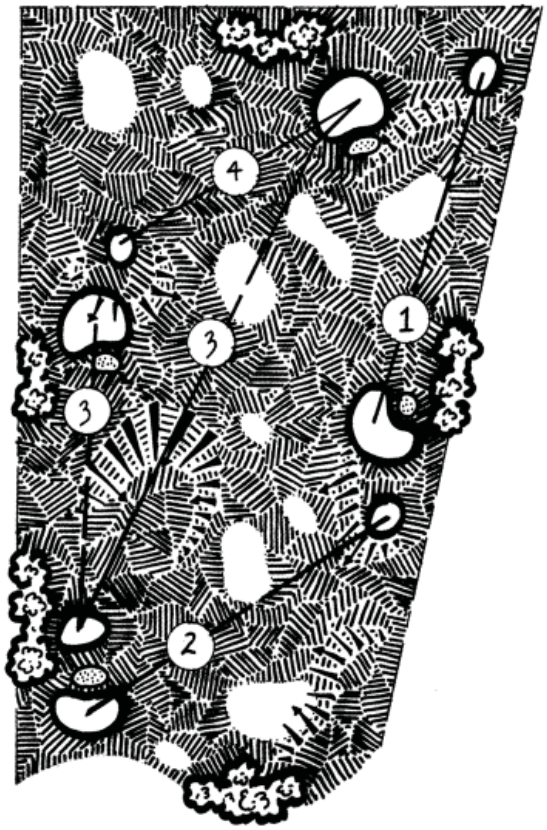
Figure 7.17: Potential configurations for the Pitch and Putt Course

Alternative #3



Hole	Distance
1	164
2	205
3	263
Total	**632**

Alternative #4



Hole	Distance
1	157
2	161
3	261
Total	**579**

Hole	Distance
1	157
2	161
3	132
4	134
Total	**584**

The practice range is the final golfing piece at the learning center. The large range can accommodate even the longest hitter and gives golfers the chance to practice their shots while looking at "real" golf problems. The range contains six green, measuring 78, 123, 154, 172, 215, and 270 yards from the center of the main tee, as well as two green-side bunkers and trees to vary the backdrop of the shot. A few of the greens are also positioned a fairway width apart to approximate the feel of hitting down a fairway from the tee. Perhaps its most unusual feature though, is the football field occupying the back third of the range.

The field has been relocated from Douglass Park. Since the football field was used infrequently – a couple of hours at a time a few days a week – and the back third of the range does not see much play, it made sense to see if the two activities could share the space. The football field starts 200 yards away from the main tee and extends to the southwest. At 200 yards, the field would be at the outer limits for most golfers and should be completely out of touch for beginners. Still when there are games or a practice on the football field, the driving range could be limited to shots of 175 yards or less, restricting it to iron play for most people. In addition, two of the target greens have been located near the center of the sidelines, to serve as viewing areas instead of metal bleaches. Sloping the sides of the surrounding area or forming broad steps around the green would give people a place to watch the game that would still blend into the surrounding topography.

The relocated football field is also part of a secondary node of activity located off of 25th St. This area serves as a trial head for the Monon, giving people a place to park

while using this portion of the trail. The existing basketball court from Douglass Park has also been relocated to this area and two additional courts added.

Finally, there is the railstop. This design did not go into detail about the layout of the railstop or the potential redevelopment surrounding it; instead it merely identifies logical places for that redevelopment to occur. It did, however, look at circulation for the stop. The main parking for the railstop is located to the north of the new building for the learning center. Right now it can accommodate about 130 vehicles, but there is room to expand it to the north if additional spaces are needed. There is also a lot for short term and handicap parking immediately adjacent to the railstop. In addition, the main pedestrian circulation between the railstop and parking lot would be along the proposed 28th St. connection, so the number of rail crossings would be limited. The 28th St. pedestrian connection also serves as a divider between the commercial redevelopment to the north and the recreational activities to the south.

The Learning Center at the Monon Railyard gives both beginning and experienced golfers a place to learn and practice all facets of their game. The putting course and pitch and putt course are easily accessible and have a wide variety of configurations to keep players interested. They also can be played relatively quickly, giving people the chance to play the game without consuming long periods of time. In addition to golf, the railyard also houses basketball courts and a football field, both of which were relocated from Douglass Park.

Overall, the renovation of Douglass Park Golf Course and the design of the Learning Center at the Monon Railyard give people a place to experience golf that is both fun and accessible. The two facilities have similar feel, but the learning center focuses

more on practice with some playing, while the course emphasizes playing and some practice. The designs draw on the existing history of the sites, but also offer a flexibility that has not historically been found on golf courses. This design flexibility will help keep players interested and offer golfers of all levels a challenge without overwhelming a beginner. This design reinforces the idea that golf can be fun and accessible for people of all ages.

Conclusion

The aim of this creative project is to create a place for people to learn and enjoy golf without worrying about some of the rigid restraints that have been placed on the game in recent years. A course need not consume 150 acres and play to 7,000 yards to be fun, and it certainly does not need 18 holes, but it does need to be accessible and enjoyable while at the same time providing a challenge to those who play it.

The idea of golf as a game is becoming lost in the United States, as advertisers pitch the idea of golf as a lifestyle complete with expensive new daily fee courses and costly state-of-the-art equipment. While there are a few people who make millions playing the game, at its core golf is a recreational pursuit. The sport provides participants with a lifetime of physical and mental benefits including the development of motor skills, character education, and critical thinking and analysis. Recent studies have even shown

that golfing leads to a decreased morality rate.[1] All of these reasons reinforce the fact that the game of golf positively impacts the lives of those who play it.

Although the game provides important benefits to those who participate, the number of golfers playing has decreased in recent years. The most troubling statistic for the future of golf is the number of juniors playing the game, which dropped 24% between 2005 and 2008.[2] With the amount of play and participation stagnant or declining the game of golf needs to make a few adjustments if it is going to grow and thrive in the future. Courses must be made accessible, from both a playing and economic perspective. They need to be enjoyable, for the beginner through the experienced player, and they must be interesting to keep people engaged. Geoff Shackelford reiterates this point stating "the future [of golf] depends on the existence of enjoyable, reasonably priced courses that make it easy to learn and then convenient to stick with golf."[3]

The renovation of Douglass Park Golf Course and the design of the Learning Center at the Monon Railyard attempt to accomplish this. Douglass Park retains a more traditional feel, but the holes have been changed to offer more strategic options and require a wider variety of shots. Also, the more traditional nine hole course can be broken down into two smaller courses, composed of a five hole loop and a four hole loop. This option gives Douglass Park Golf Course extra flexibility, allowing for simultaneous practice or play in a variety of configurations.

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[1] A. Ahlbom and B. Farahmand, "Golf: a game of life and death – reduced mortality in Swedish golf players," *Scandinavian Journal of Medicine and Science in Sports*, May 2008.
[2] Matthew Futterman, "Golf's Big Problem: No Kids: Still intimidating for beginners, the game isn't attracting young people. Tennis, anyone?" *The Wall Street Journal*, May 15-16, 2010, sec. W, p.4.
[3] Shackelford, *Future*, 6.

The Learning Center at Monon Railyard also incorporates this flexibility into its design. The putting course – perhaps the easiest way to introduce people to the game – consists of a single large green which can be set up in a myriad of configurations. There is also a pitch and putt course where beginners can have their first experience playing and more advanced players can go for a quick round. This mini-course also has a number of options, from nine short holes to a variety of longer three, four, and six hole loops. Constantly changing the set-up of this course allows golfers to work on different aspects of their game and prevents it from feeling monotonous. In addition, a round on the pitch and putt is a great option for families because it does not take long to play and is not overly taxing on beginners or juniors. At the practice range players can work on any shot they want, in a place set up to look like real golf problems. Target greens with bunkers, different settings for the greens, and driving aisles that approximate the width of the fairway, all of these things mimic an actual golf course, making for an easier transition from the range to a course.

This creative project offers a blueprint for how the game of golf can thrive in the 21st century. Locate facilities near where people live. Alternative courses do not take as much land as regulation courses, and as programs like the Button Hole in Providence, R.I. – a course located on an old gravel pit – demonstrate they can turn an eyesore into a community asset. Make courses fun, but still challenging, ensuring beginners won't be overwhelmed, but experienced players won't be bored. Allow the facilities to be flexible. This could be in the form of an easy conversion from play to practice or multiple set-up configurations – including varying distance and number of holes. Remember that golf is

a form of recreation not a lifestyle, and the joy of the game comes from the simple things such as being outside and hitting a little white ball towards a distant target.

That might be the most important lesson of all, to remember. Many current ideas for fixing what ails golf come from its past, using ideas that were once common, or at least not uncommon, but over the years have fallen by the wayside as the game has become standardized. The game began as an obstacle course. The player chose a route and strategy to try and get from point A to point B in the least number of strokes. There was no set distance, no set route, no set number of holes, but as golf became more popular, it also became more regimented. This standardization of the game is now restricting its opportunities to grow, limiting options for people to play and making the game less accessible. By returning to some of the ideas discarded in the past, trying new alternatives, and restoring some of the flexibility to the sport, golf can break out of its current constraints and become a game for all.

Appendix A

Glossary of Terms

Alternative Golf Facility
For a facility to be deemed alternative, it must provide the same experience as a regulation golf course but offer a beginner-friendly layout, cost less money, and take less time to play.

Short Course
Also referred to as a par 3 course, is a 9 or 18 hole course composed entirely of par 3 holes, and these holes range in length from 60 – 240 yds.

Pitch and Putt Course
This is a smaller version of a short course, and is generally played with only a pitching wedge and putter. Usually they contain no holes longer than 75 yds.

Executive Course
Executive courses are composed only of par 3 and par 4 holes, and total par for an 18 hole round is generally 58-66. These were originally designed as alternative courses for business executives who did not have time to play a regulation course. Now they are commonly found in retirement communities and family neighborhoods.

Practice Course
This is a course composed of 3 to 6 regulation length holes. These are usually not stand alone facilities and are generally found in conjunction with a traditional golf facility or driving range.

Putting Course
A scaled down version of regulation course, which can have one of three basic configurations.

1) Single large green
2) Single large green with interior hazards
3) Individual holes that closely resemble “putt-putt” on real grass

Driving Range
Also referred to as a practice range, a driving range is generally 300 ft. wide by 900 ft. long and is composed of a large teeing area and target greens or distance markers. Usually a driving range is the first place beginners go to practice full shots and also where more experienced players can go to practice their swings.

First Tee
The First Tee was founded by the PGA to "impact the lives of young people by providing learning facilities and educational programs that promote character development and life-enhancing values through the game of golf". Most First Tee programs are located in urban areas.

For the Love of the Game Grants
Grants provided by the USGA that empower organizations that introduce the game to people who would otherwise not have the opportunity, specifically children from economically disadvantaged backgrounds and individuals with disabilities. Grants can go towards instructional programs, caddie or other work-based curriculums, and the construction of facilities that make the game both more affordable and accessible as well as teach individuals the life values inherent in the game.

Links Course
A links course, strictly speaking, is a course built on the land that "links" the sea to more productive agricultural land inland. They are generally located on sandy, well drained soil and tend to have a rumpled or uneven look to the fairways. Many courses called links courses today do not fit these requirements, but instead share some characteristics associated with them, including few or no trees and deep bunkers.

Parkland Course
Parkland courses are inland courses. In Great Britain they may contain few trees, but in America are generally associated with tree lined fairways. Also, while they can contain significant elevation change, the fairways themselves tend to be rather smooth.

Practice Green
Large putting green - usually located near a driving range or the first tee - that has numerous holes cut into it for practice. Short chipping onto the putting surface is also generally allowed.

Professional Golfers' Association of America (PGA)
The PGA of America was founded in 1916, and is the world's largest working sports organization, comprised of 28,000 men and women golf Professionals who are the recognized experts in growing, teaching and managing the game of golf.

Regulation Golf Course
Regulation courses are typically comprised of 18-holes. Yardage and par can vary, but generally runs between 68 and 74 with a length between 4,500 and 7,000+ yards. An 18-hole round of golf on a regulation course normally takes between three and five hours.

Short Game Practice Area
The term short game practice area encompasses the widest variety of facilities and can contain numerous greens, short fairways, and bunkers. Most allow you to practice shots from 50 yards and in, although some contain only a single green and bunker.

United States Golf Association (USGA)
This organization, founded in 1894, serves as the national governing body of golf for the United States, its territories and Mexico. The Association sponsors a variety of programs from conducting 13 national championships each year, to writing and interpreting the Rules of Golf, to funding turf grass and course maintenance practices, to supporting grassroots programs through its "For the Good of the Game" initiative.

Appendix B

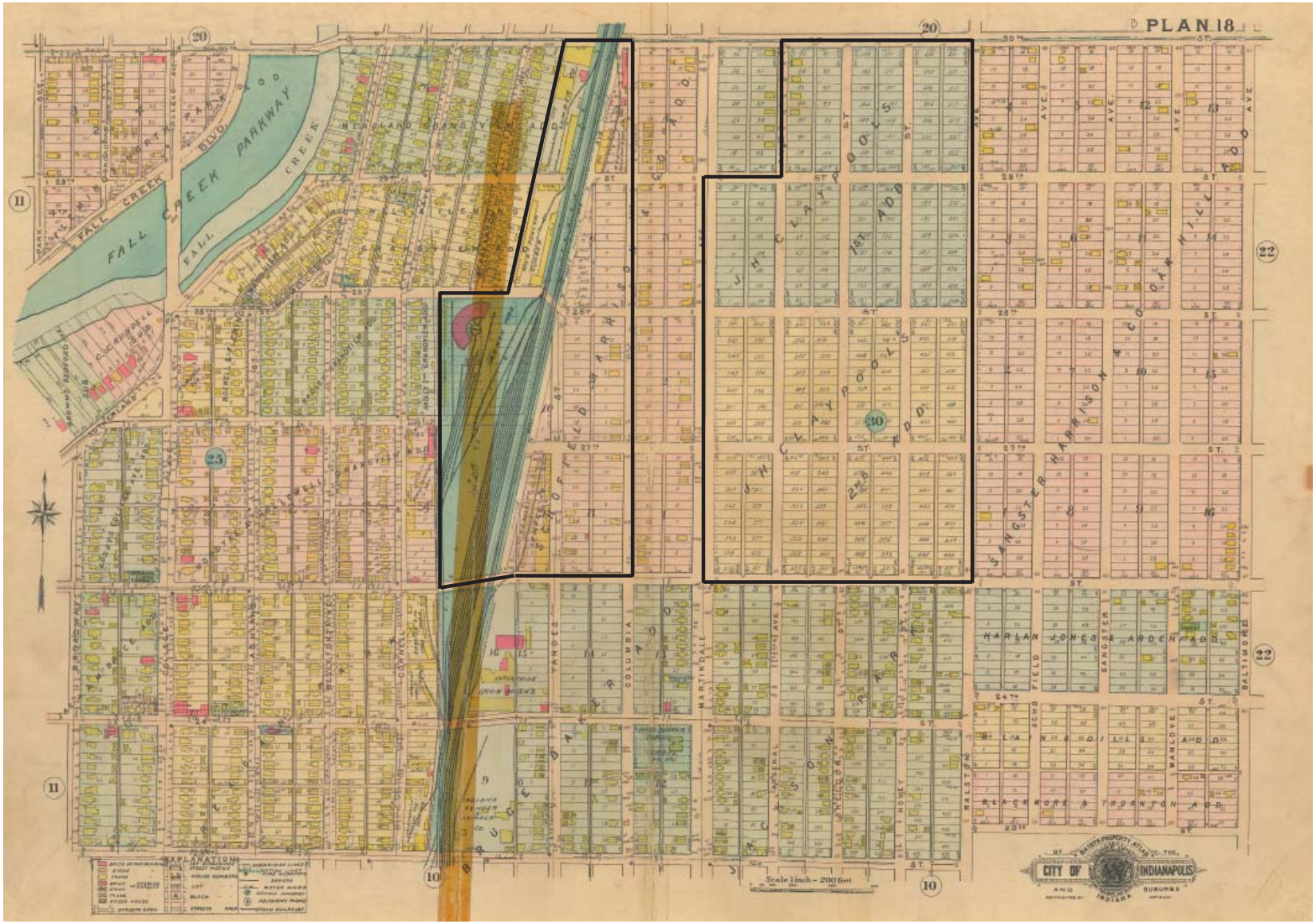


Figure B.1: Indianapolis Baist Plan #18 - 1916

Image from IUPUI University Library Digital Collection

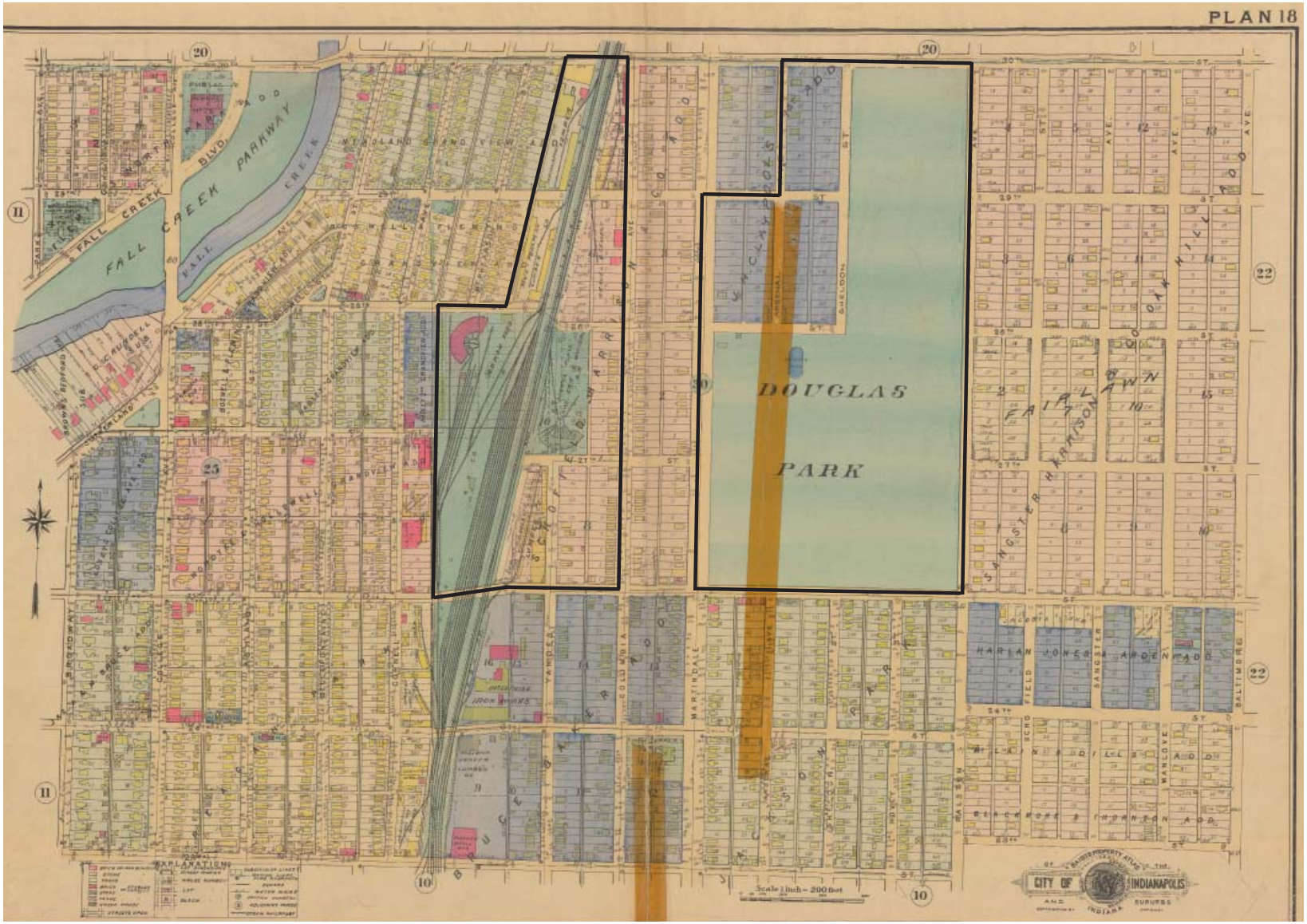


Figure B.2: Indianapolis Baist Plan #18 - 1927

Image from IUPUI University Library Digital Collection

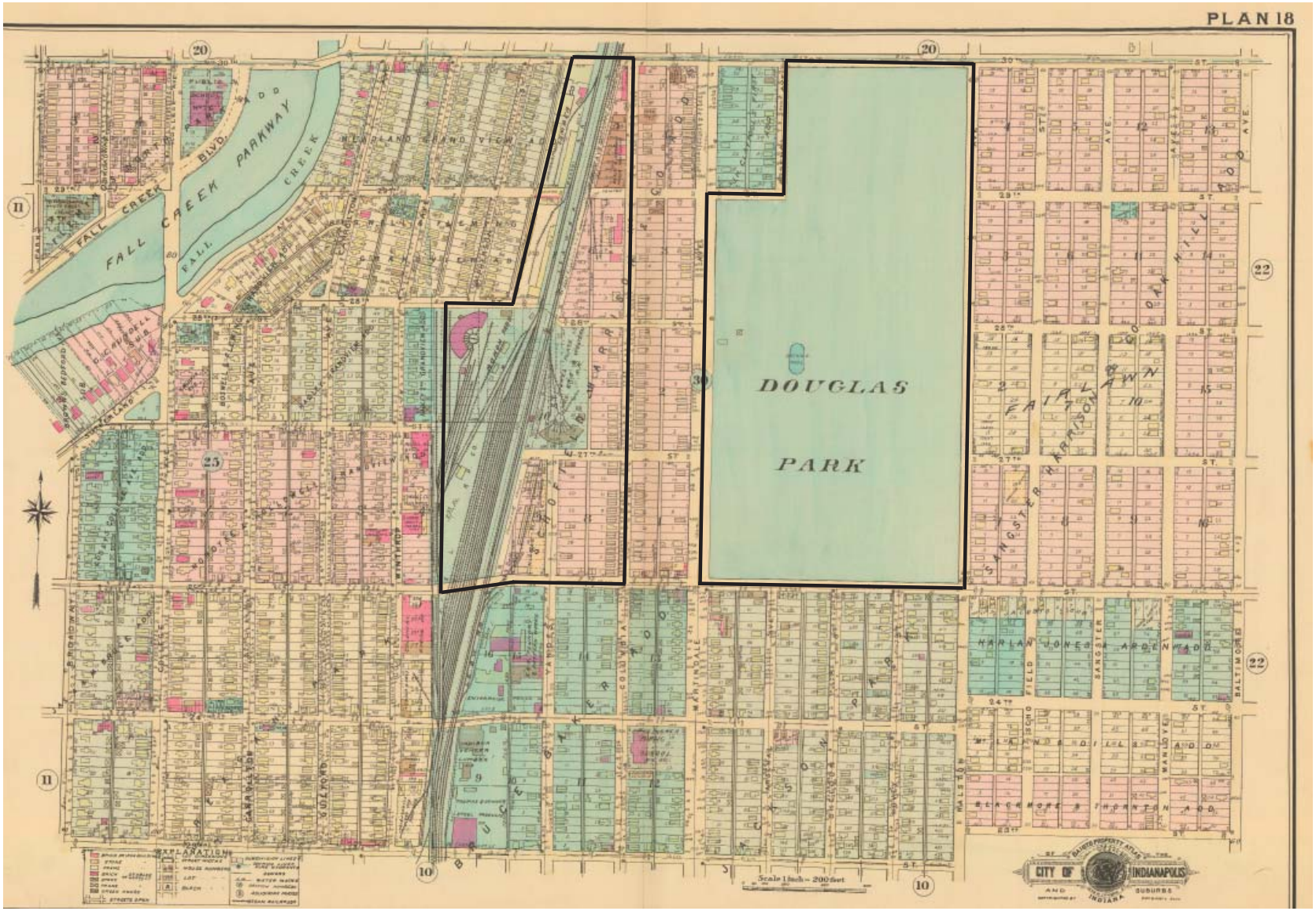


Figure B.3: Indianapolis Baist Plan #18 - 1941

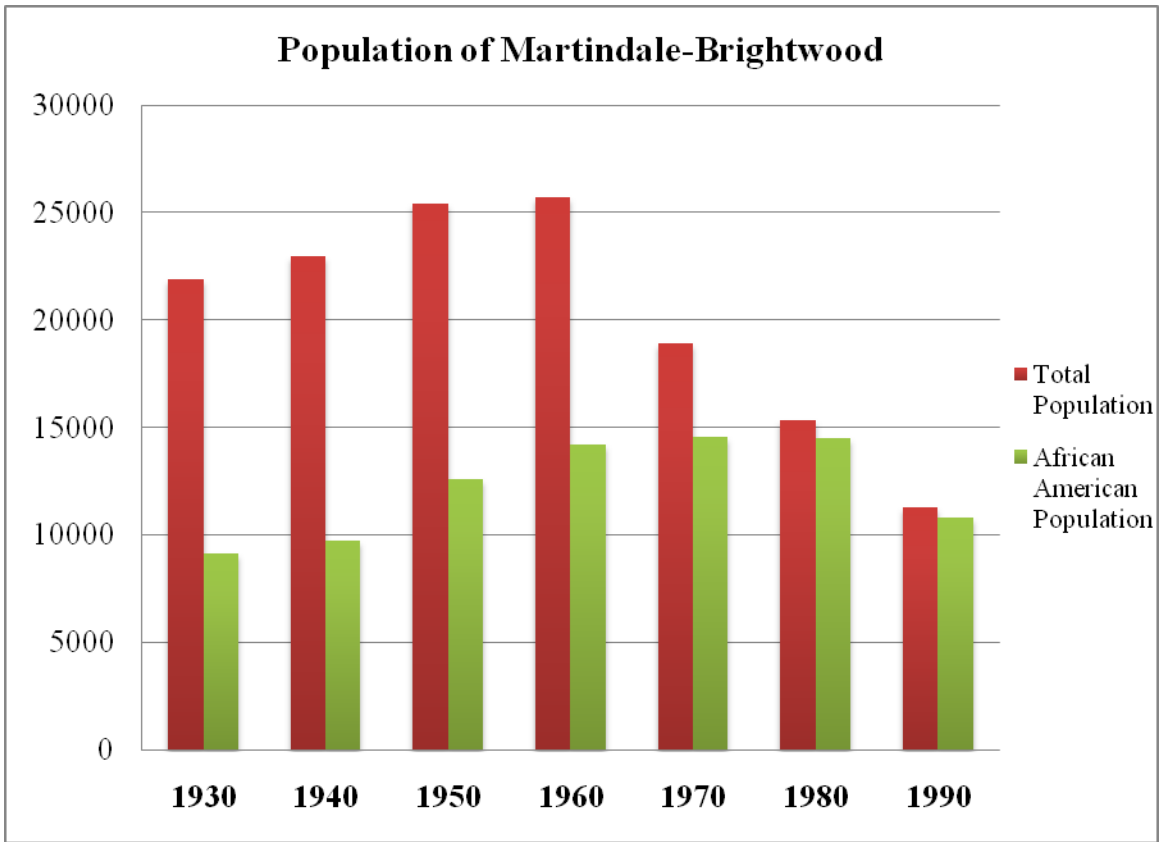
Image from IUPUI University Library Digital Collection

Appendix C

Figure C.1: Comparison of Case Studies

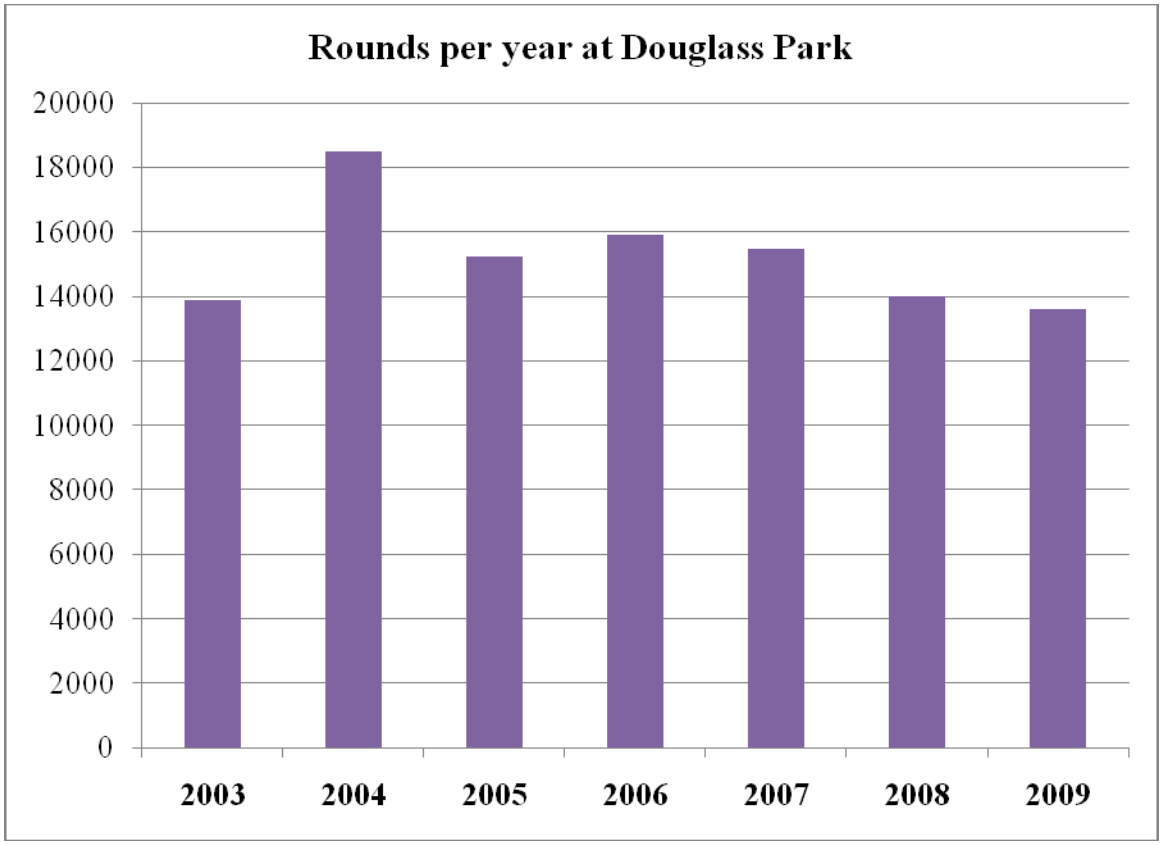
Name	Lifetime Sports Academy	Lehigh Valley First Tee	Button Hole
Location	Fort Wayne, IN	Bethlehem, PA	Providence, RI
Acreage	127	2.5	26
Participants	1800	500	3000
Outdoor Range	x		x
Indoor Range		x	x
Short Game	x	x	x
# of Holes	27	3	9
Par 3 Course	x		x
Partner Facility?	yes	yes	no
More than Golf	x		
Year Round		x	x
Restricted Ball		x	
Years	11	4	8

Figure C.2: Population Statistics for Martindale-Brightwood Neighborhood, 1930 – 1990[1]



[1] Data from *Martindale Brightwood Timeline: 1872-1994*, Indianapolis: The Polis Center, 1994.

Figure C.3: Rounds Played at Douglass Park[2]



[2] Data provided by Lou Hurrle, Director of Golf for Indy Parks

Figure C.4: Existing Shots at Douglass Park

	Tee Shot					
	Driver	**Fairway Wood**	**Long Iron**	**Mid Iron**	**Short Iron**	**Wedge**
A = long hitter from blue tees	xxxxxx		xxx			
B = average male from white tees	xxxxxx	x	xx			
C = senior male/good female from white tees	xxxxxx	xxx				
D = average female/junior from red tees	xxxxxxxx	x				

	Fairway Shot					
	Fairway Wood	**Long Iron**	**Mid Iron**	**Short Iron**	**Wedge**	**Pitch**
A = long hitter from blue tees	x			x	xx	x
B = average male from white tees	x		xx		xx	xxx
C = senior male/good female from white tees	xx	xx		x	xx	
D = average female/junior from red tees	xxxxx	x				xxxx

Types of Golfers and Distances with Various Clubs[3]				
	Driver	**Fairway Wood**	**5-iron**	**Wedge**
A = long hitter	270	240	180	130
B = average male	220	200	150	110
C = senior male/good female	200	180	130	90
D = average female/junior	150	140	100	70

[3] Table of Golfers and Distances from Richardson, 110.

Figure C.5: Proposed Shots at Douglass Park

	Tee Shot					
	Driver	**Fairway Wood**	**Long Iron**	**Mid Iron**	**Short Iron**	**Wedge**
A = long hitter from blue tees	xxxxxx		x	x		x
B = average male from white tees	xxxxxx	x		x		x
C = senior male/good female from white tees	xxxxxx	x	x		x	
D = average female/junior from red tees	xxxxxxx		x		x	

	Fairway Shot					
	Fairway Wood	**Long Iron**	**Mid Iron**	**Short Iron**	**Wedge**	**Pitch**
A = long hitter from blue tees	x			xx	x	xxx
B = average male from white tees	x	xx	x		xxx	
C = senior male/good female from white tees	xxx	xx	x	x		
D = average female/junior from red tees	xxxxx	xx	x			xxxx

Types of Golfers and Distances with Various Clubs[4]				
	Driver	**Fairway Wood**	**5-iron**	**Wedge**
A = long hitter	270	240	180	130
B = average male	220	200	150	110
C = senior male/good female	200	180	130	90
D = average female/junior	150	140	100	70

[4] Table of Golfers and Distances from Richardson, 110.

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